The Rules of Unified English Braille

Second Edition 2013

Edited by Christine Simpson

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International Council on English Braille

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The official version of *The Rules of Unified English Braille* is held as a PDF file on the ICEB website. Print and braille versions of the Rulebook may be downloaded from there.

Associated Document:

Unified English Braille Guidelines for Technical Material (available for download from the ICEB website)

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Foreword to the First Edition

It is a great pleasure for me to write the Foreword to *The Rules of Unified English Braille* and to chart the course of the development of Unified English Braille (UEB) over almost 20 years.

It has been an incredible journey! one that began in 1991 when the Braille Authority of North America (BANA) embarked on a research project to determine the feasibility of unifying its literary and technical codes. In 1993 the internationalisation of the project became a reality when the International Council on English Braille (ICEB) accepted the BANA proposal at its first executive meeting in Sydney, Australia. UEB was on the super highway! The destination remained unchanged but much of the journey had to be repeated over uncertain terrain.

The research and development to harmonise English Braille across codes and between countries has been based on six core principles:

- 1. use a 6 dot braille cell;
- 2. encompass Grade I and Grade II braille without making any major changes to the contractions of Grade II braille;
- 3. be usable by both beginning and advanced braille readers;
- 4. be computable to the greatest degree possible, without detriment to readability, from print to braille to print and employing an unambiguous braille representation of each print symbol;
- 5. embed textbook, mathematics, computer and other technical codes (excluding the music code); and
- 6. consider all submitted English braille codes in its formulation.

Braille experts from each of the participating countries of Australia, Canada, New Zealand, Nigeria, South Africa, United Kingdom and United States have from time to time re-examined previous decisions—although the core principles underpinning UEB have remained unchanged—in their painstaking analysis to assign symbols and codify the details of UEB. Each of these experts brought their own perspectives as code developers, educators, transcribers, proofreaders, and braille readers—who were always in the majority. These amazing participants were sustained by faith in their ability to compromise and the soul-searching necessary to leave behind the differences in English braille codes to realize the dream of a unified code for the future.

Recent social and technological changes have had major impacts on the lives of braille readers. Integration at school, at work, and into society in general requires braille that is compatible with print. Rules of the braille codes that served context-based braille in the past became a roadblock to today's automated production methods because of their huge reliance on human intervention. Technology offers accessibility to material produced electronically. UEB, by adhering to its six underlying principles, has provided the braille code for today and tomorrow.

Along the way, the journey involved countless email discussions. There were also face-to-face meetings of the Contractions, Formats, Math and Rules Committees

which devoted several days to resolve many months of electronic debate. Such things as:

- What to do about contraction usage and bridging syllables? The Contractions Committee was occupied for several years with these challenges.
- What were the best ways to use the new UEB symbols to express technical materials? The Math Committee published the *Guidelines for Technical Material* in 2008.
- Should shortform words be governed by rules, by a list, or by a combination of both? The approach to shortforms was rendered in March, 2010.
- What to do about accents in words? Finally it was decided that the accent would precede the affected letter, and that all accents would be shown.

One of UEB's main roadmaps gives the details for symbol construction. These guide the creation of future symbols and ensure that a symbol's beginning and ending are always identifiable—so important because many braille symbols are more than one cell.

Now, in June 2010, the UEB Rulebook is being published. Those involved in the project did not anticipate the length and complexity of their journey in the intervening years; but they soon discovered that having the principles, although the most important step, was only the first of many. Another factor was that all of the participants in the UEB project did so as volunteers with support obtained by their braille authorities. This truly was the project of a lifetime for them and worthy of the thousands of hours they gave to advancing UEB to its completion.

While this journey is complete, another one has begun as braille authorities in Australia, Canada, New Zealand, Nigeria and South Africa have adopted UEB and implementation has commenced. Many people are excited about UEB's refreshment of the braille code supporting the integration of blind people into the multi-faceted information society.

The UEB Rulebook will give great assistance to all who are currently working with UEB as well as those who will do so in the future. I congratulate the Australian Braille Authority for undertaking this very worthwhile and necessary project and all those who have assisted with its completion in such a short time.

I also extend my very best wishes to all those who will be taking part in the journey of the future of Unified English Braille.

Darleen Bogart Chair, UEB Project Committee 1991–2010

Foreword to the Second Edition

Unified English Braille continues to expand its reach. As this second edition is published, the braille authorities of the United Kingdom and the United States have adopted UEB and are planning its implementation. The Irish National Braille and Alternative Format Association (INBAF) joined ICEB in December 2012, increasing our membership to eight. They will also be implementing UEB.

We are all indebted to Phyllis Landon for the diligent manner in which she has led the continued development of the UEB Rulebook. Her ability to cogently present the precise details of rules and examples is a huge asset to ICEB and I congratulate her and the Code Maintenance Committee on achieving a landmark publication for the ICEB.

Peter Osborne President, International Council on English Braille

Preface to the First Edition

Unified English Braille (UEB) was adopted as Australia's official braille code on May 14 2005 during the Annual Meeting of the Australian Braille Authority (ABA). At the time, there were few teaching and learning resources available for UEB, and although the *UEB Primer* developed by Josie Howse in 2006 continues to be invaluable for anyone learning the basics of UEB, there was clearly a need for an authoritative and complete elaboration of the rules of the new code that could be used by braille educators, producers, and readers.

After preliminary discussion with several organisations involved in the teaching and production of braille, a project brief was adopted by the ABA Executive in August 2007 for the development of what has come to be known as the UEB Rulebook. The proposal included a specification of the work that would be required, as well as a budget for the project. There was discussion by the Executive of the Round Table on Information Access for People with Print Disabilities Inc. (of which the ABA is a subcommittee), and also at the General Assembly of the International Council on English Braille (ICEB) in April 2008. Following some fine-tuning of the original proposal, sponsorship was sought for the project in June 2008, and five organisations contributed funds to allow the project to commence in August 2008.

Christine Simpson was engaged by the Round Table to edit and compile the Rulebook based on the core formulation of the rules of UEB that was being done by the committees of the ICEB responsible for developing UEB. Christine is an experienced teacher of braille to adults, a leading producer of braille materials in Australia, and a lifelong user of braille in all aspects of her personal and professional life. Under the guidance of the ABA Executive, the UEB Rulebook development was supported by a Project Advisory Committee comprising representatives from the ABA Executive, the sponsoring organisations, and ICEB. This Committee has met regularly during the past two years, and has provided invaluable advice on all aspects of the book's development. The members of the Committee were:

- Bruce Maguire (Chair, Australian Braille Authority, and Chair of the Project Advisory Committee)
- Leona Holloway (Vision Australia)
- Josie Howse (Editor UEB Primer, ABA Executive Committee member)
- Bill Jolley (Australia's ICEB Representative)
- Phyllis Landon (Chair, UEB Rules Committee ICEB)
- Janet Reynolds (Royal New Zealand Foundation of the Blind)
- Stefan Slucki (Royal Society for the Blind, South Australia)
- Maria Stevens (Braille Authority of New Zealand)
- Nicola Stowe/Tristan Clare (Royal Institute for Deaf and Blind Children)

RNIB chose not to appoint a member to the Committee. Christine Simpson provided secretarial support for the Committee.

As the UEB Rulebook nears completion, it is invigorating to reflect on the factors that have combined to nourish the project and ensure its success. I have identified three: collaboration, commitment, and convergence.

The development of UEB itself has been a triumph of collaborative endeavour, and it is not an exaggeration to say that with the Rulebook, collaboration has reached its apotheosis. Collaboration between organisations, collaboration between individuals, and collaboration among countries has all been integral to the success of the Rulebook. While some of this collaborative work took place through telephone meetings and face-to-face discussion, much of it was made possible by technologies such as the Internet, computer software, and refreshable braille displays. It is hard to imagine, for example, how the Rulebook could have been developed in such a comparatively short time without email, sophisticated word-processing software, and the Duxbury Braille Translator. Braille and emerging technologies are sometimes portrayed as competitors, especially by those who do not understand, and who thus feel threatened by, the liberating empowerment that braille offers. UEB seeks to equip braille (which, ironically, is one of the first "digital" technologies in every sense of that word) with the flexibility to evolve synergistically with other technologies. Indeed, the Internet and much computer software have evolved at the same time as UEB itself has been developed, and the Rulebook embodies a true technological harmony. We have been able to collaborate much more effectively, and reach a much wider group of braille users for feedback and comment, than would have been possible when the UEB project was begun. The result is that the Rulebook is truly an example of "democracy in action", and it is responsive to the needs of a broad spectrum of braille users.

The Rulebook could not have been developed without the commitment of many people and groups. The organisations who provided financial sponsorship of the project have demonstrated their commitment to UEB and the aims and objectives of the Rulebook. The sponsors are:

- Royal Institute for Deaf and Blind Children (Australia)
- Royal National Institute of Blind People (UK)
- Royal New Zealand Foundation of the Blind
- Royal Society for the Blind, South Australia
- Vision Australia.

In addition to providing financial support, the sponsors have been generous with staff time for attending meetings of the Project Advisory Committee and reviewing drafts as the Rulebook has progressed.

The ICEB has been strongly committed to the UEB Rulebook project since the earliest stages of planning, and has expedited the work of the UEB Rules Committee and the UEB Project Committee to help ensure that the Rulebook could be completed on time and within budget. The ICEB has been represented on the Project Advisory Committee, and ICEB members have provided valuable feedback on the various drafts that have been circulated for comment.

The members of the Project Advisory Committee have all shown a personal commitment to the Rulebook project, and the result reflects their valuable input, advice, and feedback. The Committee met 14 times by teleconference, and all meetings were well-attended, and characterised by enthusiastic and thoughtful discussion.

The Executive of the Round Table, led by Brian Conway in his role of Round Table President, has been committed to the UEB Rulebook Project through the management of its financial aspects, as well as assisting with the design of the Rulebook cover, and arranging for printing.

The Round Table provides a forum for organisations in Australia and New Zealand with an interest in print disability to collaborate on matters of common concern, such as the development of standards and guidelines. The Round Table was successful in obtaining Government funding for UEB workshops that were held throughout Australia in the mid-1990s. The input and feedback provided by these workshops helped to shape the development of UEB in various ways and, ultimately, have influenced the content and structure of the Rulebook.

Many people have worked hard, often behind the scenes, to support and promote the development of the UEB Rulebook. In this sense, the Rulebook has been enriched by the commitment of the braille community, acting individually and together, to renew and consolidate the work that Louis Braille began almost 200 years ago.

In today's world of digital media, the term "convergence" is generally used to refer to a coming-together or blending of previously separate technologies. So we can say that over the past two decades there has been a growing convergence of telecommunications, computing and publishing, to the point where individuals can now create content using their computers, and then publish it on various websites using their mobile phones. However, in the context of the UEB Rulebook, I am using the term "convergence" to refer to a felicitous coming-together of personal attributes, capacities and qualities that have formed a sure foundation for the project. Everyone involved in one way or another with the project bears witness to the notion that ordinary people can accomplish extraordinary things, but three people stand out.

Phyllis Landon has provided constant enthusiasm, leadership and wisdom as she has chaired the UEB Rules Committee, drafted the various rules, and provided a neverending source of ingenious examples that will, I am sure, enlighten generations of UEB students. Phyllis's contribution is imprinted on every page of the Rulebook (even this one), and it has been a privilege to work with her.

Darleen Bogart is almost as synonymous with UEB as Louis Braille is with braille. Darleen has been the Chair of the UEB project initiative since it was internationalised in 1993, and for two years before that she was Chair of the committee established by the Braille Authority of North America (BANA) to investigate the feasibility of creating a unified braille code. In 1993 the expectation was that the development of UEB would be completed within three years. We may have initially under-estimated the magnitude of the task, but during the past 17 years, Darleen has never waivered in her passionate belief that braille deserves the best that we can bring to it, and then some more. She has occasionally cajoled, sometimes persuaded, often encouraged, but always inspired us by her commitment, diplomacy, insight, and focus. Darleen has been an enthusiastic supporter of the UEB Rulebook project from the beginning, and she has nurtured it at every step along the way.

Christine Simpson was always the obvious choice as the editor and compiler of the Rulebook. As a braille teacher, she has an in-depth knowledge of UEB itself, and she knows how to communicate that knowledge in ways that lead to effective learning; as a producer of braille, Christine has an unsurpassed knowledge of the intricacies of braille translation and formatting; and as a user of braille, she has the dedication and passion to flow over, under, and around any obstacles and overcome any challenges. The development of the Rulebook has certainly presented some technical challenges. To allow drafts of the Rulebook's individual sections to be produced and updated effectively and efficiently in both print and braille, Christine developed an innovative approach that combined use of Microsoft Word's Styles and Template features with some of the advanced capabilities of the Duxbury Braille Translator. These techniques that Christine pioneered will be of value to anyone who needs to produce complex documents in print and braille through multiple revisions, and they certainly made it possible to provide much greater opportunities for feedback than would have otherwise been the case.

Christine has devoted almost two years of her working life to the development of the UEB Rulebook, and the result is a work of outstanding quality, accuracy, clarity, and value. It is a rich and lasting testimony to Christine's personal dedication to braille, her ability to harmonise different and sometimes quite divergent perspectives into a consensus, and her capacity to think creatively about the teaching, learning and use of braille.

The UEB Rulebook is the culmination of a journey that celebrates the contemporary relevance and vitality of braille. There will, of course, be future editions of the Rulebook as UEB continues to evolve and we gain more experience of using UEB in a variety of situations. No doubt each subsequent edition will have its own particular style in response to particular needs and challenges. This first edition, though, is one-of-a-kind (as first editions are apt to be): it sets a benchmark and establishes expectations of excellence that can only be good for braille and UEB.

We hope that the UEB Rulebook will be a valued resource for anyone who teaches braille, produces braille, or reads and writes braille. It is a book to be used and kept close at hand rather than left to languish on a shelf.

Above all, we hope that the UEB Rulebook will help strengthen braille as the primary literacy medium of people who are blind, and in so doing enable braille users to participate fully in all aspects of life.

Bruce Maguire Chair, UEB Rulebook Project Advisory Committee 2008–2010

Preface to the Second Edition

At the meeting of its Executive in July 2010, responsibility for the maintenance of Unified English Braille was assumed by the International Council on English Braille. At that time, the Code Maintenance Committee (CMC) was established "to ensure that the ongoing work associated with the maintenance of UEB be carried out efficiently, effectively, and with appropriate stakeholder representation."

The members of the CMC since its formation have been:

- Sheila Armstrong (United Kingdom) to December 2012
- Antonnette Botha (South Africa)
- James Bowden (United Kingdom) from January 2013
- Christo de Klerk (South Africa)
- Leona Holloway (Australia) from December 2010
- Phyllis Landon, **Chair** (Canada)
- Stuart Lawlor (Ireland) from April 2013
- Bruce Maguire (Australia) to November 2010
- Jean Obi (Nigeria)
- Christine Simpson (Australia)
- Maria Stevens (New Zealand)
- Joe Sullivan (United States)

The work of the CMC has resulted in this second edition of the Rulebook. All major additions and substantive changes have been approved by the ICEB Executive.

The following sections of the Rulebook are new:

- Section 14: Code Switching
- Section 15: Scansion, Stress and Tone
- Section 16: Line Mode, Guide Dots

This edition includes two new appendices which are:

- Appendix 2: Word List
- Appendix 3: Symbols List

Also new to this edition are:

- UEB signs for the music accidentals (3.18)
- Nemeth Code indicator (14.6)

Other changes have been made to correct errors in the first edition (of which there were very few) and to clarify issues. Refer, in particular, to:

- 2.3.1 and 2.3.2 (capitalization is not considered ornamentation);
- 2.4.7 (UEB modes may not extend through a switch to another code);
- 3.2 (the basic arrow signs);
- 4.2 (print representations of the modifiers are now included);

• 5.6.2 and 6.5.1 (the grade 1 terminator may be inserted to terminate grade 1 mode when established by the numeric indicator).

The completion of this second edition is thanks to the efforts of many accomplished people. Christine Simpson once again did an outstanding job of editing the print edition and ensuring a consistent appearance. Leona Holloway produced the symbols list and developed a method to provide an accurate representation of the letter modifiers for print readers. The braille edition was produced by CNIB volunteer transcribers. Mary Hughes and Jill Cooter are to be commended for their timely, accurate, and thorough transcription and proofreading. All members of the Code Maintenance Committee at some point contributed to this edition, whether through examples, suggestions, ideas or commentary. We have been fortunate to have the benefit of their time, experience, knowledge and wisdom.

I would like to thank Mary Schnackenberg for her assistance and encouragement, particularly when the Committee was first starting out. Pete Osborne has ensured that all matters brought to the ICEB Executive were dealt with quickly and efficiently.

This second edition reflects the unity of purpose and sense of cooperation within the English braille world. On behalf of the Code Maintenance Committee, I trust the Rulebook will be a valued reference tool which will contribute to a uniform standard and the increased exchange of materials for the readers of English braille.

Phyllis Landon Chair, ICEB Code Maintenance Committee

Acknowledgements

Publication of this second edition of *The Rules of Unified English Braille* is the result of work undertaken by many people over an extended period of time.

Editing and production of the first edition of this Rulebook was sponsored by the following organisations. I acknowledge and thank:

- Royal National Institute of Blind People (UK)
- Royal Institute for Deaf and Blind Children (Australia)
- Vision Australia
- Royal New Zealand Foundation of the Blind
- Royal Society for the Blind of South Australia

During the process of compiling and editing this publication I have greatly appreciated the hard work and dedication of the many people who have provided source material and feedback. Formulation of the braille rules and compilation of many of the examples was originally undertaken by members of the UEB Rules Committee most capably lead by Phyllis Landon.

Phyllis has continued to lead the process of documenting and refining the UEB Rules and has spent countless hours drafting and wordsmithing text. Now, as Chair of the ICEB Code Maintenance Committee, she, along with her Committee, continues to give valuable hours of support and guidance to the development of this publication.

My thanks also go to members of the Rulebook Project Advisory Committee. Lead by Bruce Maguire, they provided me with invaluable guidance, encouragement and feedback for the production of our first edition and have sustained their support for the project in more recent times.

In particular I acknowledge with true appreciation the constant feedback, careful proofing and advice given to me by Phyllis Landon, Leona Holloway, Bill Jolley and Kathy Riessen. Without their careful review of wording, their numerous suggestions, additions and corrections, this Rulebook would not serve as the invaluable reference tool that readers have come to know and rely upon.

And finally, a special thank you to my husband John, whose thoughtful assistance with the print layout has been truly appreciated. His many suggestions to refine the visual look of this document have helped to make a complex set of rules and examples appear clear, uncluttered and easily manageable.

Christine Simpson Editor

About This Book

The Rules of Unified English Braille is primarily intended for use by braille transcribers, although it is hoped that it will also serve as a key reference for braille translation software developers and other braille experts.

This publication is not a manual for learning braille. It is a reference that a transcriber may use often and a reader of braille may use occasionally for clarification. Topics are not in an order which allows the reader to learn the braille code. Good braille knowledge is essential for effective use of this publication.

The statement of each "braille rule" is followed by useage examples. Cross-references and notes are also included. The words "Refer to:" indicate text directing the reader to related material and the word "Note:" indicates text that serves to clarify a point, or to remind the reader of something important.

Text in square brackets should be considered as an "editorial note"; included for the purpose of helping the reader better understand an example or a point being illustrated. Text in round brackets is usually part of an example.

The print version has been prepared using SimBraille font for all braille examples, so it does not show the dot locator preceding the symbols under discussion. However, in the braille version the dot locator has been added where required.

Examples in the print version show the text in regular font and then in SimBraille. Examples are shown just once in the braille version. Where more than one example is placed on the same line, multiple spaces have been inserted for separation. In some instances a Transcriber Note has been added to the braille text to ensure that the point being illustrated is clear to the braille reader.

Under the heading "Examples:" readers will see instances of where a particular symbols-sequence or contraction is used, followed under the heading "But:" by a listing of instances where such symbols-sequences or contractions may not be used.

Lists of symbols are mostly in braille order (see Section 1.1.2, Introduction).

Section 11: Technical Material summarises information in *Unified English Braille Guidelines for Technical Material* that constitutes rules rather than guidelines. It is presented in a slightly different style from the rest of the Rulebook. Print and braille versions of The Guidelines document can be downloaded from http://www.iceb.org.

Appendix 1 presents the shortforms in alphabetic order, together with their associated wordlists. Each shortform wordlist is in two parts: firstly listing words which begin with the shortform, and then listing words where the shortform follows another syllable or syllables.

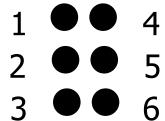
Appendix 2 provides an alphabetic list of all example words used in Section 10 to show contraction use.

Appendix 3 is the complete list of UEB symbols in braille order. It shows, where applicable: UEB symbol, print symbol (print edition only), unicode value, symbol name, usage and reference.

Section 1: Introduction

1.1 Definition of braille

1.1.1 Braille is a tactile method of reading and writing for blind people developed by Louis Braille (1809–1852), a blind Frenchman. The braille system uses six raised dots in a systematic arrangement with two columns of three dots, known as a braille cell. By convention, the dots in the left column are numbered 1, 2 and 3 from top to bottom and the dots in the right column are numbered 4, 5 and 6 from top to bottom.



1.1.2 The six dots of the braille cell are configured in 64 possible combinations (including the space which has no dots present). The 63 braille characters with dots are grouped in a table of seven lines. This table is used to establish "braille order" for listing braille signs.

```
Line 1: .
            • •
              •
                   •••
                          •••
            •
               :
Line 2: 🗓
       . .
              Line 3: ដ
       :
                         • • • •
                   Line 4:
         ••
              •
Line 5: •
       •
            •
                •
                   ::
         :
           Line 6: .:
:
```

Line 1 is formed with characters in the upper part of the cell, using dots 1, 2, 4 and 5.

Line 2 adds dot 3 to each of the characters in Line 1.

Line 3 adds dots 3 and 6 to each of the characters in Line 1.

Line 4 adds dot 6 to each of the characters in Line 1.

Line 5 repeats the dot configurations of Line 1 in the lower part of the cell, using dots 2, 3, 5 and 6.

- Line 6 is formed with characters using dots 3, 4, 5 and 6.
- Line 7 is formed with characters in the right column of the cell, using dots 4, 5 and 6.
- 1.1.3 An individual may write braille by hand either using a slate and stylus to push dots out from the back of the paper working from right to left or using a mechanical device called a brailler. A person may also use an embosser to reproduce an electronic braille file. These methods all produce embossed braille on hardcopy paper.
- 1.1.4 A person may read an electronic braille file by using a refreshable braille display attached to his/her computer. This employs pins which raise and lower to form the braille characters.
- 1.1.5 Originally developed to represent the French language, braille has been adapted for English and many other languages.
- 1.1.6 Braille is used to represent all subject matter, including literature, mathematics, science and technology. Louis Braille developed the system which is used worldwide today for representing music.

1.2 Principles of Unified English Braille

- 1.2.1 Unified English Braille (UEB) is a system of English braille which represents all subjects except music.
- 1.2.2 The purpose of UEB is to allow the reader to understand without ambiguity what symbols are being expressed by a given braille text.
- 1.2.3 The primary transcribing rule is to produce braille that, when read, yields exactly the original print text (apart from purely ornamental aspects).
- 1.2.4 A print symbol has one braille equivalent in UEB. Use the braille sign for that print symbol regardless of the subject area.
- 1.2.5 In UEB the 64 braille characters including the space are designated as being either a prefix or a root. There are 8 prefixes: iplus the braille characters formed from the dots in the right column of the cell, that is the characters from Line 7 of the table in section 1.1.2 above. The other 56 braille characters are roots. The UEB prefixes are:
- 1.2.6 The last two braille characters in the table : and : are special prefixes. A special prefix may be used in combination with another special prefix to form a braille sign. Such braille signs are used only as indicators.

Example:

The passage indicators :: :: and :: :::

1.2.7 Any other braille sign in UEB is constructed from a root or from a root plus one or more prefixes.

Examples:

1.3 Basic signs found in other forms of English braille

Note: In the following sections, only braille signs found in both *English Braille American Edition* and *British Braille* are listed.

Contractions

- 1.3.1 Other forms of English braille write the wordsigns for "a", "and", "for", "of", "the" and "with" unspaced from one another.
- 1.3.2 Other forms of English braille use the following contractions which are not used in UEB:

o'clock (shortform)

dd (groupsign between letters)

to (wordsign unspaced from following word)

into (wordsign unspaced from following word)

by (wordsign unspaced from following word)

ble (groupsign following other letters)

com (groupsign at beginning of word)

ation (groupsign following other letters)

ally (groupsign following other letters)

Punctuation

- 1.3.3 Other forms of English braille use the following punctuation signs which are not used in UEB:
 - opening and closing parentheses (round brackets)
 - :: .: closing square bracket
 - closing single quotation mark (inverted commas)
 - ellipsis
 - dash (short dash)
 - double dash (long dash)
 - opening square bracket

Composition signs (indicators)

- 1.3.4 Other forms of English braille use the following composition signs (indicators) which are not used in UEB:
 - non-Latin (non-Roman) letter indicator
 - accent sign (nonspecific)
 - print symbol indicator
 - : italic sign (for a word)
 - double italic sign (for a passage)

General symbols

- 1.3.5 Other forms of English braille use the following general symbols which are not used in UEB:
 - pound sign (pound sterling)
 - paragraph sign
 - section sign
 - dollar sign
 - . : asterisk

- end of foot
- caesura
- short or unstressed syllable
- is long or stressed syllable

Technical subjects

1.3.6 Other forms of English braille use special codes to represent mathematics and science, computer notation and other technical or specialised subjects.

Section 2: Terminology and General Rules

2.1 Terminology

alphabetic: designating letters of the alphabet, including modified letters, ligatured letters and contractions, which stand for letters

alphabetic wordsign: any one of the wordsigns in which a letter represents a word

braille cell: the physical area which is occupied by a braille character

braille character: any one of the 64 distinct patterns of six dots, including the space, which can be expressed in braille

braille sign: one or more consecutive braille characters comprising a unit, consisting of a root on its own or a root preceded by one or more prefixes (also referred to as braille symbol)

braille space: a blank cell, or the blank margin at the beginning and end of a braille line

braille symbol: used interchangeably with braille sign

contracted: transcribed using contractions (also referred to as grade 2 braille)

contraction: a braille sign which represents a word or a group of letters

final-letter groupsign: a two-cell braille sign formed by dots 46 or dots 56 followed by the final letter of the group

grade 1: the meaning assigned to a braille sign which would otherwise be read as a contraction or as a numeral (Meanings assigned under special modes such as arrows are not considered grade 1.)

grade 1 braille: used interchangeably with uncontracted

grade 2 braille: used interchangeably with contracted

graphic sign: a braille sign that stands for a single print symbol

groupsign: a contraction which represents a group of letters

indicator: a braille sign that does not directly represent a print symbol but that indicates how subsequent braille sign(s) are to be interpreted

initial-letter contraction: a two-cell braille sign formed by dot 5, dots 45 or dots 456 followed by the first letter or groupsign of the word

item: any one of a precisely-defined grouping of braille signs used primarily in technical material to establish the extent of certain indicators, such as indices

letters-sequence: an unbroken string of alphabetic signs preceded and followed by non-alphabetic signs, including space

lower: containing neither dot 1 nor dot 4

mode: a condition initiated by an indicator and describing the effect of the indicator on subsequent braille signs

modifier: a diacritical mark (such as an accent) normally used in combination with a letter

nesting: the practice of closing indicators in the reverse order of opening

non-alphabetic: designating any print or braille symbol, including the space, which is not a letter, modified letter, ligatured letter or contraction

passage: three or more symbols-sequences

passage indicator: initiates a mode which persists indefinitely until an explicit terminator is encountered

print symbol: a single letter, digit, punctuation mark or other print sign customarily used as an elementary unit of text

root: any one of the 56 braille characters, including the space, which is not a prefix

shortform: a contraction consisting of a word specially abbreviated in braille

standing alone: condition of being unaccompanied by additional letters, symbols or punctuation except as specified in 2.6, the "standing alone" rule; used to determine when a braille sign is read as a contraction

strong: designating contractions (other than alphabetic wordsigns) containing dots in both the top and bottom rows and in both the left and right columns of the braille cell

strong character: designating a braille character containing dots in both the top and bottom rows and in both the left and right columns of the braille cell, which therefore is physically unambiguous

symbols-sequence: an unbroken string of braille signs, whether alphabetic or non-alphabetic, preceded and followed by space (also referred to as symbols-word)

terminator: a braille sign which marks the end of a mode

text element: a section of text normally read as a unit (a single paragraph, a single heading at any level, a single item in a list or outline, a stanza of a poem, or other comparable unit), but not "pages" or "lines" in the physical sense that are created simply as an accident of print formatting

uncontracted: transcribed without contractions (also referred to as grade 1 braille)

upper: including dot 1 and/or dot 4

word indicator: initiates a mode which extends over the next letterssequence in the case of the capitals indicator or over the next symbols-sequence in the case of other indicators

wordsign: a contraction which represents a complete word

2.2 Contractions summary

alphabetic wordsigns:

but	can	do	every	from	go	have	just
knowle	edge	like	more	not	people	quite	rather
SO	that	us	very	will	it	you	as

strong wordsigns:

child shall this which out still

strong contractions: may be used as groupsigns and as wordsigns.

and for of the with

strong groupsigns:

ch gh sh th wh ed er ou ow st ing ar

lower wordsigns:

be enough were his in was

lower groupsigns:

ea be bb con cc dis en ff gg in

initial-letter contractions: may be used as groupsigns and as wordsigns.

• beginning with dots 45;

upon these those whose word

beginning with dots 456;

cannot had many spirit their world

• beginning with dot 5;

day ever father here know lord mother

name	one	part	questio	n	right	some
time	under	young	there	characte	er	through
where	ought	work				

final-letter groupsigns:

beginning with dots 46;

ound ance sion less ount

• beginning with dots 56;

ence ong ful tion ness ment ity

shortforms:

about	above	according	across
after	afternoon	afterward	again
against	also	almost	already
altogether	although	always	blind
braille	could	declare	declaring
deceive	deceiving	either	friend
first	good	great	him
himself	herself	immediate	little
letter	myself	much	must
necessary	neither	paid	perceive
perceiving	perhaps	quick	receive
receiving	rejoice	rejoicing	said
such	today	together	tomorrow
tonight	itself	its	your
yourself	yourselves	themselves	children
should	thyself	ourselves	would
because	before	behind	below
beneath	beside	between	beyond
conceive	conceiving	oneself	

2.3 Following print

2.3.1 Follow print when transcribing into braille, including accents, punctuation and capitalisation.

Note: This provision does not apply to print ornamentation as provided for in 2.3.2 below, or to parts of the braille text which are added by the transcriber, e.g. preliminary pages, page information lines, or transcriber's notes.

2.3.2 When transcribing, it is preferable to ignore print ornamentation which is present only to enhance the appearance of the publication

and does not impart any useful information.

Examples of print ornamentation include:

- different typefaces or fonts for headings
- the lowercase of letters with accents in a fully capitalised word
- coloured type used for all example words
- italics used for all variables in a text
- small capitals font used for all Roman numerals
- 2.3.3 When a facsimile transcription is required, reproduce all aspects of print as fully as possible including ornamentation.

 Examples of circumstances when a facsimile transcription may be requested are:
 - when the reader is responsible for editing the text
 - when the reader is studying typography
 - when the reader is studying original manuscripts
- 2.3.4 In general, do not correct print errors.

2.4 Indicators and modes

- 2.4.1 The purpose of indicators is to change the meaning of the following braille characters or to change an aspect of the following text (e.g. to indicate capitals or a special typeface).
- 2.4.2 Many braille signs have more than one meaning.

Examples:

- the letter "f"; in numeric mode digit "6"; contracted (grade 2) meaning the alphabetic wordsign "from"
- in grade 1 mode arrow indicator; contracted (grade 2) meanings the strong groupsign "ou" and the strong wordsign "out"
- question mark; opening nonspecific quotation mark; contracted (grade 2) meaning the lower wordsign "his"
- vertical solid line segment; line indicator, as in poetry
- in numeric mode numeric space followed by digit "4"; contracted (grade 2) meaning the initial-letter contraction "day"
- Greek letter sigma; contracted (grade 2) meaning the finalletter groupsign "less"

- 2.4.3 The reader determines the meaning of a braille sign in several ways:
 - by its spacing (e.g. the vertical solid line segment)
 - by applying the Standing Alone rule (e.g. alphabetic wordsigns)
 - by its position in relation to other signs (e.g. opening nonspecific quotation mark, line indicator, final-letter groupsigns)
 - by the mode in effect (e.g. digits, arrow indicator)
- 2.4.4 Use an indicator to establish the mode which determines the meaning of the braille signs which follow.

Note: The list below gives the basic indicators and the modes which they set. It does not include indicators for extended modes (e.g. grade 1 word indicator and grade 1 passage indicator), indicators for variations (e.g. bold arrow indicator), subsidiary indicators (e.g. superposition indicator used in shape mode) or terminators.

- sets shape mode: *Guidelines for Technical Material,* Part 14, Shape Symbols and Composite Symbols
- sets arrow mode: *Guidelines for Technical Material,* Part 13, Arrows
- sets numeric mode and grade 1 mode: Section 6, Numeric Mode
- opens and sets horizontal line mode: Section 16, Line Mode, Guide Dots
- sets grade 1 mode: Section 5, Grade 1 Mode
- 2.4.5 Use an indicator to change an aspect of the text which follows.

Note: The list below gives the basic indicators of this type.

- subscript indicator: *Guidelines for Technical Material,* Part 7, Superscripts and Subscripts
- superscript indicator: *Guidelines for Technical Material,* Part 7, Superscripts and Subscripts
- script symbol indicator: Section 9, Typeforms
- bold symbol indicator: Section 9, Typeforms
- ligature indicator: Section 4, Letters and Their Modifiers
- underlined symbol indicator: Section 9, Typeforms
- italic symbol indicator: Section 9, Typeforms

```
capitals word indicator: Section 8, Capitalisation
```

- 2.4.6 The list below gives other indicators.
 - cursor indicator: *Guidelines for Technical Material,* Part 17, Computer Notation
 - general fraction open and close indicators: *Guidelines for Technical Material,* Part 6, Fractions
 - braille grouping opening and closing indicators: Section 3, General Symbols
 - transcriber's note opening and closing indicators: Section 3, General Symbols
 - non-UEB word indicator: Section 14, Code Switching
 - line indicator: Section 15, Scansion, Stress and Tone
 - line continuation indicator: Section 6, Numeric Mode
 - dot locator for "use": Section 3, General Symbols
 - dot locator for "mention": Section 3, General Symbols
- 2.4.7 A mode established by a UEB indicator may not extend through a switch to another braille code.

SCHWA /Ə/ OR MID-CENTRAL VOWEL

He cried in despair, je suis vraiment désolé, and fell to his knees.

2.5 Grades of braille

Uncontracted (grade 1) braille

2.5.1 The use of contractions is disallowed by certain rules. These include:

- Section 4, Letters and Their Modifiers no contractions following a modifier, no contractions before or after a ligature indicator
- Section 5, Grade 1 Mode no contractions within grade 1 mode
- Section 6, Numeric Mode no contractions within grade 1 mode when set by a numeric indicator
- Section 12, Early Forms of English no contractions in Old English.

In technical material these include: [See *Guidelines for Technical Material:*]

- Part 1, General Principles no contractions in strings of fully capitalised letters.
- Part 14, Shape Symbols and Composite Symbols no contractions in the description of a transcriber-defined shape.
- Part 16, Chemistry no contractions in letters representing chemical elements.
- Part 17, Computer Notation no contractions in a displayed computer program.
- 2.5.2 Uncontracted (grade 1) braille is different from grade 1 mode.
- 2.5.3 Grade 1 mode exists only when introduced by a grade 1 indicator or by a numeric indicator.
- 2.5.4 Uncontracted (grade 1) braille is a transcription option which may be selected for any number of reasons, including:
 - when the pronunciation or recognition of a word would be hindered: Section 10, Contractions
 - in Middle English: Section 12, Early Forms of English
 - in foreign words: Section 13, Foreign Language
 - in texts for readers who have not learned contracted braille
 - when the spelling of a word is featured, as in dictionary entries

Note: Braille authorities and production agencies may establish policies for the guidance of transcribers in the use of uncontracted (grade 1) braille.

2.5.5 Although contractions are not used in grade 1 mode, uncontracted (grade 1) braille may be employed without the use of grade 1 indicators.

Contracted (grade 2) braille

Note: The use of the contractions in contracted (grade 2) braille is covered in Section 10, Contractions.

Note: UEB contracted braille differs slightly from other forms of English contracted braille. See Section 1.3, Introduction, for basic signs found in other forms of English braille.

Other grades of braille

Note: Other grades of braille have been developed. One of these is grade 3 braille which contains several hundred contractions and is primarily for personal use. Another is grade $1\frac{1}{2}$ braille. Employing only 44 one-cell contractions, this was the official code of the United States from 1918 to 1932.

2.6 Standing alone

2.6.1 A letter or letters-sequence is considered to be "standing alone" if it is preceded and followed by a space, a hyphen or a dash. The dash may be of any length, i.e. the dash or the long dash.

Examples:

- 2.6.2 A letter or letters-sequence is considered to be "standing alone" when the following common punctuation and indicator symbols intervene between the letter or letters-sequence and the *preceding* space, hyphen or dash:
 - opening parenthesis (round bracket), opening square bracket or opening curly bracket (brace bracket)
 - opening quotation mark of any kind

- nondirectional quotation mark of any kind
- apostrophe [also see Section 2.6.4]
- opening typeform indicator of any kind
- capitals indicator of any kind
- opening transcriber's note indicator
- or any combination of these.

```
[can ::::::
           –(after ∷∷∷∷∷∷∷
"do :::
           'your
'e 'as :::::
          p : \mathbb{R}^{n}
people ::::
           enough :::::
child-safe
          N : : : : :
-GREAT
OUT OF TOWN
But:
this/that
&c ::::::
¶d :::::
é :::::
           ū ii ii ii
~S
           ~st ∷∷∷
```

2.6.3 A letter or letters-sequence is considered to be "standing alone" when the following common punctuation and indicator symbols intervene between the letter or letters-sequence and the *following* space, hyphen or dash:

- comma, semicolon, colon, full stop (period), ellipsis, exclamation mark or question mark
- closing parenthesis (round bracket), closing square bracket or closing curly bracket (brace bracket)
- closing quotation mark of any kind
- nondirectional quotation mark of any kind
- apostrophe [also see Section 2.6.4]
- typeform terminator of any kind
- capitals mode terminator
- closing transcriber's note indicator
- or any combination of these.

```
d: :::::::::
        this...
rejoice!
      children." t' have-
Himself or herself?-Neither!
ALWAYS BE YOURSELF
[open TN]His choice was D.[close TN]
But:
t'night :: :: :: :: ::
        word(s)
ab/cd :: :: :: :: ::
        this.)*
```

```
<J.Child@children.net>
```

```
just_for_good.org :: ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ... : ...
```

2.6.4 A word with an interior apostrophe is considered to be "standing alone" under the specific provisions of Section 10, Contractions, 10.1.2 (alphabetic wordsigns), 10.2.2 (strong wordsigns) and 10.9 (shortforms).

Examples:

Section 3: General Symbols and Indicators

```
space (see 3.23)
• •
                   opening braille grouping indicator (see 3.4)
                   first transcriber-defined print symbol (see 3.26)
                   shape indicator (see 3.22)
•••
                   arrow indicator (see 3.2)
• • • •
                   simple right pointing arrow (east) (see 3.2)
\downarrow
                   simple down pointing arrow (south) (see 3.2)
simple left pointing arrow (west) (see 3.2)
simple up pointing arrow (north) (see 3.2)
        \uparrow
••
                   ratio (see 3.17)
••••
                   proportion (see 3.17)
                   subscript indicator (see 3.24)
                   prime (see 3.11 and 3.15)
::
***
        ″
                   double prime (see 3.11 and 3.15)
...
                   superscript indicator (see 3.24)
natural (see 3.18)
        þ
flat (see 3.18)
        b
#
                   sharp (see 3.18)
second transcriber-defined print symbol
                   (see 3.26)
closing braille grouping indicator (see 3.4)
commercial at sign (see 3.7)
        (a)
¢
                   cent sign (see 3.10)
€
                   euro sign (see 3.10)
F
                   French franc sign (see 3.10)
£
                   pound sign (pound sterling) (see 3.10)
naira sign (see 3.10)
        ₩
$
                   dollar sign (see 3.10)
¥
                   yen sign (yuan sign) (see 3.10)
ampersand (see 3.1)
        &
less-than sign (see 3.17)
        <
::::::
        Λ
                   caret (see 3.6)
```

```
tilde (swung dash) (see 3.25)
third transcriber-defined print symbol (see 3.26)
greater-than sign (see 3.17)
       >
opening transcriber's note indicator (see 3.27)
closing transcriber's note indicator (see 3.27)
dagger (see 3.3)
       +
#
                  double dagger (see 3.3)
copyright sign (see 3.8)
       (C)
0
                  degree sign (see 3.11)
\P
                  paragraph sign (see 3.20)
(R)
                  registered sign (see 3.8)
ξ
                  section sign (see 3.20)
ΤM
                  trademark sign (see 3.8)
Q
                  female sign (Venus) (see 3.16)
male sign (Mars) (see 3.16)
       3
fourth transcriber-defined print symbol (see 3.26)
number sign (crosshatch, hash, pound sign)
       #
                  (see 3.19)
bullet (see 3.5)
fifth transcriber-defined print symbol (see 3.26)
• • •
                  ditto mark (see 3.12)
        "
•
                  plus sign (see 3.17)
       +
                  equals sign (see 3.17)
=
. . . . .
                  multiplication sign (see 3.17)
       X
*
                  asterisk (star) (see 3.3)
division sign (see 3.17)
       ÷
sixth transcriber-defined print symbol (see 3.26)
minus sign (see 3.17)
dot locator for "use" (see 3.14)
dot locator for "mention" (see 3.13)
%
                  percent sign (see 3.21)
seventh transcriber-defined print symbol
                  (see 3.26)
```

3.1 Ampersand **∷**

3.1.1 Follow print for the use of the ampersand.

Examples:

```
Marks & Spencer

AT&T

B&B

B&B

Cetc)
```


3.2.1 Follow print for the use of arrows. In non-technical material, list the complete arrow symbol (without any grade 1 indicator) and its meaning on the symbols page or in a transcriber's note.

Note: The grade 1 indicator may be required before the arrow symbol to avoid it being misread.

Refer to: Section 11.6, Technical Material, and *Guidelines for Technical Material*, Part 13, for further information on arrows.

Examples:

Road signs of \rightarrow and \leftarrow mark detours.

Put a \uparrow on the map to indicate north.

Arrow used in the following example:

```
down arrow with sharp turn right ∴
```

The ENTER key is the one with \downarrow on it.

3.3 Asterisk ::: dagger ::::: and double dagger ::::::

3.3.1 Follow print for the use of the asterisk, dagger and double dagger, regardless of meaning.

Note: For example, the dagger may be used as a reference mark, or as the Latin or Christian cross to signify death or a member of the clergy.

Note: Usually the asterisk and sometimes the dagger and double dagger appear raised from the baseline in print. This is not considered the superscript position.

```
Examples:
Spelling words marked with an * have a silent letter.
To access your voicemail, strike *98 on your telephone.
Speed * time = distance.
showing *emphasis* in email messages
Irene V***
foul language such as *#*$!* or with omitted letters as in D***
New World Hotel ****
brothers Jed* and Ben** Chan
  *born in Hong Kong
  **born in Canada
```

```
Authors: Roy Brown, † Shirley Jones, Walter Smith, † Douglas White
     The painter included daisies,* white roses† and ivy‡ in the portrait.
  *symbolizing innocence
  †symbolizing virtue
  ‡symbolizing fidelity
-dash*-or parentheses (round brackets†)
Rev. Robert Lowin†
```

3.4 Braille grouping indicators : ::

3.4.1 Use braille grouping indicators when necessary to ensure that the preceding braille symbol or indicator applies to all the symbols enclosed by the braille grouping indicators rather than just to the symbol immediately following.

Note: This includes a modifier which applies to more than one letter and a subscript or superscript indicator which applies to more than one "item".

Refer to: Section 4.2.5, Letters and Their Modifiers and Section 11.4, Technical Material.

```
spoon is it is it
```

3.5 Bullet **∷** ∴

3.5.1 Follow print for the use of the bullet.

Note: At times, other symbols may be used for a similar purpose.

Refer to: 3.22 for shapes and 3.26 for transcriber-defined symbols.

Example:

Nutritional considerations include:

- carbohydrates
- protein
- fat
- cholesterol
- fiber
- sodium

3.6 Caret ::::

3.6.1 Follow print for the use of the caret.

Refer to: Section 4.2, Letters and Their Modifiers, for the circumflex accent *above* a letter.

Example:

[caret used as an editing mark to show omissions:]

My favourite pets are my dog ^ my cat ^ my hamster. My job ^ to feed them.

3.7 Commercial at sign **∷**∷

3.7.1 Follow print for the use of the commercial at sign.

Examples:

```
FLASH@lightning.net Sell the candies @ 10¢ each.
```

3.8 Copyright **∷** registered **∷** and trademark **∷** signs

3.8.1 Follow print for the use of the copyright, registered and trademark signs. Usually the trademark sign appears raised from the baseline in print. This is not considered the superscript position.

Examples:

3.9.1 Print uses crosses for a variety of purposes. Select the appropriate braille symbol based on the purpose of the cross.

Note: Use the letter "x" or "X" only when the cross has no mathematical or scientific meaning; for example: to represent a kiss.

Refer to: 3.3 for use of the dagger as a Latin or Christian cross (e.g. to signify death or a member of the clergy); and to 3.17 for the multiplication sign which is used to show dimensions, degree of magnification, and crosses between breeds of animals or between varieties of plants.

```
With love, XXOO
```

Sealed with a X

Illiterate people usually signed their name with an X.

a 4x4 vehicle

15×15×20 cm

The room is 12 ft. \times 16 ft.

a 10× lens

Labrador × Poodle

3.10.1 Follow print for the use of currency signs.

Note: Some currencies are indicated by a letter or letters (e.g. "DM" for Deutsche Mark, "p" for pence, "R" for Rand).

Refer to: 3.26, for transcriber-defined symbols to represent currency signs with no UEB symbols.

Examples:

```
10¢ ∷ ∷ ∷ ∷ 99c ∷ ∷ ∷ ∷
```

A\$40 \$19.95 \$19.95

\$23,783,200

\$2bn (2 billion dollars)

The \$ rose.

```
20$00 (20 escudos)
30,00€ ∷∷∷∷∷∷
€75
6€50
     F1 :: : : : :
₩0.20 = 20 kobo
£24
     Ir£
£3m (3 million pounds)
fX ::::::
R25
```

3.11 Degrees : minutes :: and seconds :: :: :::

3.11.1 Follow print for use of the degree sign and the prime signs.

Note: The minute may be shown in print by an apostrophe and the second by a nondirectional double quote. This usage can be followed in braille.

Examples:

```
250°, 350°, or 450°?

33°51′35.9″S

151° 12' 40" E
```

3.12 Ditto mark :::

3.12.1 Follow print for the number used and the approximate placement of the ditto mark, that is, under the item that it refers to on the line above.

```
Examples:
living room: pioneer blue
dining room:
kitchen:
         yellow
• • •
• • :
Mon 10-12 study 2-4 Eng pt1
Tues " "
Wed Science Art
• • •
             • • •
                 • •
                         • • •
• • •
Anne – village girl
Joan – "
......
....
               • • •
```

3.13 Dot locator for "mention" ∷∷

3.13.1 Use a dot locator for "mention" to set apart a braille symbol which is under discussion, as in a symbols list, a transcriber's note or in a publication about braille such as this one. Place the dot locator for "mention" before the braille symbol and unspaced from it.

When a dot locator for "mention" is used, do not list the dot numbers of the braille symbol.

Note: A braille symbol, e.g. a typeform indicator or a grade 1 indicator, preceded by the dot locator for "mention" does not have its normal effect on the following text.

Examples:

[The dot locator is not shown in the print copy in these examples.] [a symbols list:]

```
script passage indicator

acute accent over following letter
```

[a transcriber's note:]

[tn open]In the dictionary example below, is a macron over the following letter and is a breve over the following letter.[tn close]

[from a manual for braille transcribers:]

The capitals passage indicator : sets capitals mode until it is terminated by : which is the capitals terminator.

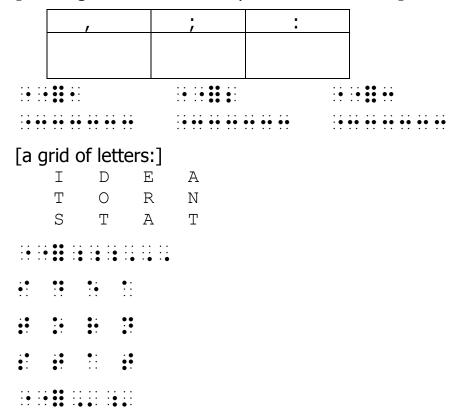
3.14 Dot locator for "use" :: :::

3.14.1 Use a dot locator for "use" unspaced before a braille symbol to assure that it will be physically recognizable. A braille symbol which has only lower dots and which is isolated from other text may otherwise

be misread. A braille symbol preceded by a dot locator for "use" retains its normal effect on text.

Examples:

[headings of a table about punctuation marks:]



3.15 Feet :: :: and inches :: :: ::::

3.15.1 Follow print for the use of the prime sign.

Note: The foot may be shown in print by an apostrophe and the inch by a nondirectional double quote. This can be followed in braille.

Examples:

3.16 Female (Venus) ∷∷ and male (Mars) ∷∷ signs

3.16.1 Follow print for the use of the female (Venus) and male (Mars) signs.

- 3.17 Mathematical signs: plus ∷∷ equals ∷∷ multiplication ∷∷ division ∷∷ minus ∷∷ ratio ∷ proportion ∷∷ less-than ∷∷ and greater-than ∷∷
- 3.17.1 Follow print spacing for use of the plus, equals, multiplication, division, minus, ratio, proportion, less-than and greater-than signs when used in non-technical material.

```
Examples:
```

a map with a scale of 1:500,000

hand: arm:: foot: leg

3.18 Music accidentals: natural ∷∷ flat ∷∷ sharp ∷∷

3.18.1 Follow print for the transcription of the natural, flat and sharp signs within UEB text.

Examples:

The C# pavilion is named for Cecil Sharp.

The scale of G major includes the note $F \sharp$.

A jazz 2-5-1 progression in C minor could be Dm7b5 - G7#9 - Cm7.

The \$\psi\$ sign on a note cancels the effect of any \$\psi\$ or \$\bar{b}\$ in the key signature.

the dominant chord g-b\u00e4-d

... we obtain the somewhat more transparent relation

$$X^{\flat}(Y) = \langle X, Y \rangle$$

for all vectors X and Y.

3.18.2 When the natural, flat and sharp signs are found within musical notation, use the provisions of the *New International Manual of Braille Music Notation* for their transcription.

3.19 Number sign (crosshatch, hash, pound sign) :::

3.19.1 Follow print for use of the number sign.

Examples:

```
Apt. #D Apt. #D 20# bag of flour Apt. #D Apt.
```

3.20 Paragraph **∷** and section **∷** signs

3.20.1 Follow print for use of the paragraph and section signs.

Examples:

3.21 Percent sign ∷:

3.21.1 Follow print for use of the percent sign.

3.22 Shapes **∷**

3.22.1 In non-technical material, list the complete shape symbol (without any grade 1 indicator) and its meaning on the symbols page or in a transcriber's note.

Note: A grade 1 indicator may need to be added before the symbol in the text of the document being transcribed.

Refer to: Section 11.7, Technical Material, and *Guidelines for Technical Material*, Part 14, for further information on shapes; and 3.26 for transcriber-defined symbols.

Examples:

[a multi-level organisation chart using bullets, squares and circles:]

- Vice-President Client Services
 - Director Library Services
 - Manager Braille Production
 - Manager Audio Production
 - □ Director Rehabilitation Services

[A student textbook uses the following icons (as explained in the text) before certain material: pencil—Write an essay; pointing finger—Remember; question mark in a circle—Research.]

- Recycling at my house.
- Steps to test acidity.

```
Recycling in my town.
```

3.23 Space

3.23.1 A space is a blank area separating words, letters, numbers and punctuation. Whenever there is some amount of space in print, including at the end of a line, there is a space in braille. If there is doubt as to whether a space is present in print, presume one is present. The amount of space present is not considered important.

Note: In print, formatting and other techniques can leave varying amounts of space. In braille, formatting rules may also require varying amounts of space, for example two spaces at the beginning of a paragraph and aligning text in a table.

Refer to: Section 6.6, Numeric Mode, for the special case of a space used as a separator within a number and to Section 11.2.2, Technical Material, for spacing in mathematics.

Examples:

Using a proportional font and setting the paragraph margins to align at the left and the right, produces varying amounts of white space between words in print. This variation is ignored in braille.

Some nouns have the same spelling for the singular and the plural: deer sheep salmon species Chinese

```
[Example words are widely spaced in print.]
```

3.24 Subscript : and superscript : indicators

3.24.1 Indicate the subscript or superscript position when used in print. In grade 2 braille, use grade 1 mode for the subscript and the superscript indicators.

Refer to: Section 11.4, Technical Material, for superscripts and subscripts and to 3.4, for braille grouping indicators.

Examples:

```
W^m
                4m^2
3 \text{ yd}^3 \vdots \vdots \vdots \vdots \vdots \vdots
born in 1682.<sup>3</sup>
born in 1982.<sup>c</sup>
America<sup>3</sup> (America Cubed–name of a sailing ship)
an earthquake measuring 6.5M<sub>w</sub>
the clarion<sup>1</sup> horn
  <sup>1</sup> clarion: loud and clear
```

3.25 Tilde (swung dash) ∷∴

3.25.1 Follow print for use of the tilde.

Refer to: Section 4.2, Letters and Their Modifiers, for the tilde accent above a letter.

Examples:

[from a dictionary:]

head n. the top part of the body ... -by a ~ by the length of the animal's head, as in horse racing -~ over heels tumbling as in a somersault

~ vt. to be in charge of ...

An economist would write $x \sim y$ to indicate that a consumer is indifferent between the goods x and y.

http://www.business.com/~yourname

Some people use the tilde around words to indicate an inflected tone of voice or singing as in ~Happy birthday to you~

3.26.1 Use a transcriber-defined symbol for any print symbol which has no UEB equivalent and which occurs so frequently in the text that the use of a transcriber-defined shape or composite symbol would be

impractical. List each transcriber-defined symbol used and its meaning on the symbols page or in a transcriber's note.

Note: In grade 2 braille, use grade 1 mode for the first transcriber-defined print symbol.

Refer to: Section 4.2, Letters and Their Modifiers, for transcriber-defined modifiers and Section 9.5, Typeforms, for transcriber-defined typeform indicators.

Examples:

Symbols used in the following examples:

- per mille sign, like a percent sign but with two zeros in the denominator
- B Thai Baht currency sign, B with vertical stroke through it
- flower symbol

The average salinity of seawater is 35‰.

The baht was floated and halved in value, reaching its lowest rate of \$856 to the dollar in January 1998.

A list of items in which those that can be recycled are marked with a flower symbol:

aerosol cans *

balloons

books, magazines *

cans *

ceramics

3.27 Transcriber's note indicators

3.27.1 Use the opening and closing transcriber's note indicators as unspaced enclosures around words of explanation added by the transcriber and embedded within the text. However, do not use transcriber's note indicators for notes on a separate preliminary page set up specifically to list general transcriber's notes.

Examples:

an examination of the tabular information will [open tn]Text continues on page 78.[close tn]

[In a workbook the transcriber gives a number instead of listing the blanks shown in print and explains it as follows:]

[open tn]The number after each question gives the number of answers needed.[close tn]

[In an elementary workbook, the transcriber decides not to use typeface indicators and inserts the following note:]

[open tn]All the punctuation marks are underlined in the paragraph below.[close tn]

[open tn]The following three tables appear side by side in the print.[close tn]

[open tn]Braille symbols used on the following page are if for eng and if for schwa.[close tn]

[open tn]In the table below, the column headings are abbreviated as follows:

emp inc: Employment Income

payable: Approximate Tax Payable

aver: Average Tax Rate

marg: Marginal Tax Rate[close tn]

Section 4: Letters and Their Modifiers

4.1 English alphabet

• : ::	letter a	:: •: :•::	capital letter A
• :	letter b	· · • · · · · · · · · · · · · · · · · ·	capital letter B
••	letter c	· · • • · · · · · · · · · · · · · · · ·	capital letter C
• • : •	letter d	· · • • · · · · · · · · · · · · · · · ·	capital letter D
• : : •	letter e	· · • · · · · · · · · · · · · · · · · ·	capital letter E
• •	letter f	· · • • · · · · · · · · · · · · · · · ·	capital letter F
•••	letter g	· · • • · · · · · · · · · · · · · · · ·	capital letter G
• •	letter h	· · • · · · · · · · · · · · · · · · · ·	capital letter H
• :	letter i	: · · • : • • :	capital letter I
• •	letter j	· · · • • · · · · · · · · · · · · · · ·	capital letter J
• • • • • • • • • • • • • • • • • • • •	letter k	· · • · · · · · · · · · · · · · · · · ·	capital letter K
• · • · • ·	letter I	· · • · · · · · · · · · · · · · · · · ·	capital letter L
• • • ·	letter m	· · • • · · · · · · · · · · · · · · · ·	capital letter M
• •	letter n	· · • • · · · • · · · · · · · · · · · ·	capital letter N
• •	letter o	· · • · · · · · · · · · · · · · · · · ·	capital letter O
••	letter p	· · • • · · · · · · · · · · · · · · · ·	capital letter P
••	letter q	· · • • · · · · · · · · · · · · · · · ·	capital letter Q
• •	letter r	· · • · · · · · · · · · · · · · · · · ·	capital letter R
•	letter s	· · · • · · · · · · · · · · · · · · · ·	capital letter S
•	letter t	· · · • • · · · · · · · · · · · · · · ·	capital letter T
• :	letter u	:: •: :•••	capital letter U
• •	letter v		capital letter V
• •	letter w	· · · • • · · • · · · · · · · · · · · ·	capital letter W
• • • • • • • • • • • • • • • • • • •	letter x	· · • • · · · · · · · · · · · · · · · ·	capital letter X
• •	letter y	· · • • · · · · · · · · · · · · · · · ·	capital letter Y
• •	letter z	· · • · · · · · · · · · · · · · · · · ·	capital letter Z

4.1.1 Follow print for the transcription of letters.

Refer to: Section 2.6, Terminology and General Rules, Section 5, Grade 1 Mode, Section 8, Capitalisation and Section 10, Contractions for more information.

```
A boy and his dog were on the path.
```

```
McMurdo Sound

O'Flaherty

the A train and the B train

BM or Microsoft

SPOT! GO HOME!

your CD player but my CDs

ilLOGical

OFr (Old French)
```

4.2 Modifiers

- solidus (forward slash) overlay on following letter
- horizontal stroke overlay on following letter
- breve above following letter
 breve following letter
- ii...
 □ macron above following letter
- cedilla below following letter
- ⇒ grave accent above following letter
- â circumflex above following letter
- * ring (circle) above following letter
- iii iide above following letter
- diaeresis (umlaut) above following letter
- é acute accent above following letter
- iii č caron (hacek, wedge) above following letter
- first transcriber-defined modifier on following letter
- second transcriber-defined modifier on following letter
- third transcriber-defined modifier on following letter

```
    horizontal stroke overlay on following capital letter

:: :: ::

    breve above following capital letter

:: :: ::

    macron above following capital letter

o cedilla below following capital letter
• grave accent above following capital letter

    circumflex above following capital letter

° ring (circle) above following capital letter
tilde above following capital letter
ö diaeresis (umlaut) above following capital letter
ó acute accent above following capital letter
* caron (hacek, wedge) above following capital letter
first transcriber-defined modifier on following capital
          letter
second transcriber-defined modifier on following capital
          letter
third transcriber-defined modifier on following capital
          letter
```

4.2.1 Place a modifier before the letter it modifies in braille, irrespective of whether it appears above, below or overlaying the letter(s) in print. Whenever a transcriber-defined modifier is used, give the print symbol it represents in a transcriber's note or on a symbols page.

Examples:

4.2.2

4.2.3

4.2.4

```
Étienne
                Biørnstierne Biørnson
Białka River
Öresund Bridge
Shāh Jahān built the Tāj Mahal.
Săpânta, Romania
[In this example, the first transcriber-defined modifier represents
  a comma under the following letter.]
Ħaġar Qim in Malta
[In this example, the second transcriber-defined modifier
  represents a dot above the following letter.]
If an indicator is required immediately before a modified letter, place
the indicator before the modifier.
Examples:
Ždiar, Slovakia
À LA CARTE MENU
Modifiers on letters do not terminate capitalised word mode.
Example:
AOÛT
A modified letter may not form part of a contraction.
Examples:
Général de Gaulle
```

Prométhée enchaîné

```
beau idéal in it is i
```

Note: In words such as *théâtre* where the contraction for *the* is not used, the contraction for *th* can be used.

4.2.5 If a single modifier applies to more than one letter, enclose the modified letters in braille grouping indicators. Grade 1 indicators are not required for the braille grouping indicators since the modifier can not be followed by a contraction.

Example:

```
oo as in tool
```

4.2.6 Where a modifier is shown in print without an associated letter, as in a dictionary entry or in instructional material, follow print.

Refer to: Sections 3.6 and 3.25, General Symbols and Indicators, for the caret and the tilde (swung dash); and Section 7.1, punctuation, for the solidus (forward slash) when these are separate characters rather than modifiers.

Example:

4.2.7 Use the modifiers listed above only in foreign language words and phrases in English context intended primarily for leisure reading, in English words or in anglicised words and phrases.

Where a significant knowledge of a foreign language is presupposed or is being taught, use signs from the indigenous foreign language braille code.

Refer to: Section 13, Foreign Language, for more guidance.

4.2.8 Use the modifiers in this section for linguistic accents and diacritics only and not for modifiers in mathematics or for symbols in computer programming even if their appearance is visually similar in print.

Refer to: Guidelines for Technical Material.

4.3 Ligatured letters

ligature indicator

ligature indicator where only following letter is capitalised

4.3.1 Place the ligature indicator between two letters which are joined to each other in print. Various methods are used in print to join letters, including but not limited to cross bars between the letters, tie bars or slurs over or under the letters, and letters joined together and printed as one symbol. Describe the method used in a transcriber's note or on the symbols page.

Examples:

```
Coeur de Lion help the man fiend the roed
```

in experimental alphabet]

4.3.2 The ligature indicator is considered a modifier. It does not terminate capitalised word mode and a letter joined to another by a ligature may not form part of a contraction.

Example:

4.3.3 An indicator before the first letter joined to another by a ligature applies only to the first letter. When an indicator is required for the second letter, place the indicator before the ligature indicator.

Examples:

```
Thëssalonian
```

4.3.4 When a modifier is required for a letter joined to another by a ligature, place the modifier immediately before the letter to which it applies. When a single modifier applies to both letters, use braille grouping indicators.

Examples:

4.3.5 Do not use the ligature indicator for the ae and oe diphthongs unless the letters are joined as ligatures in print.

Examples:

4.3.6 Use the ligature indicator only when the ligature has meaning and not when it is merely an aspect of the print font being used.

Example:

```
In some fonts the letters appear joined,
```

4.4 Eng and schwa

```
iii n eng iiii N capital eng schwa iiii ∂ capital schwa
```

4.4.1 Follow print for the transcription of these pronunciation symbols.

Example:

meningococcus (mə niŋ' gō käk' əs)

4.4.2 The eng and schwa are also symbols in the International Phonetic Alphabet. When the symbols appear in phonetic material, use *IPA Braille* to transcribe the phonetic text.

Greek alpha

Greek beta

Greek gamma

4.5 Greek letters

а

β

γ

	I	ereek garrina	
	δ	Greek delta	
	3	Greek epsilon	
	ζ	Greek zeta	
	η	Greek eta	
	θ	Greek theta	
	I	Greek iota	
• • • •	К	Greek kappa	
	λ	Greek lambda	
	μ	Greek mu	
	V	Greek nu	
• • • • • • • • • • • • • • • • • • • •	ξ	Greek xi	
	0	Greek omicron	
	П	Greek pi	
	ρ	Greek rho	
	ς or σ	Greek sigma	
	Т	Greek tau	
• • • •	U	Greek upsilon	
	φ	Greek phi	
	Χ	Greek chi	
	Ψ	Greek psi	
	ω	Greek omega	
	Α	capital Greek alpha	
	В	capital Greek beta	
	Γ	capital Greek gamma	
	Δ	capital Greek delta	
		Second Edition 2013	

```
capital Greek epsilon
      Ε
      Z
                 capital Greek zeta
      Н
                 capital Greek eta
Θ
                 capital Greek theta
Ι
                 capital Greek iota
K
                 capital Greek kappa
capital Greek lambda
      Λ
                 capital Greek mu
       Μ
                 capital Greek nu
       Ν
                 capital Greek xi
                capital Greek omicron
      0
П
                 capital Greek pi
Р
                 capital Greek rho
Σ
                 capital Greek sigma
Т
                 capital Greek tau
Υ
                 capital Greek upsilon
Φ
                 capital Greek phi
                 capital Greek chi
      X
      Ψ
                 capital Greek psi
capital Greek omega
      Ω
```

4.5.1 Follow print for the transcription of Greek letters. Use the Greek letters listed above in English contexts or English technical materials.

```
Use \pi in the equation. For \Sigma read sum. For
```

- 4.5.2 Use signs from the Greek foreign language braille code for passages where a significant knowledge of Greek is presupposed or where the Greek language is being taught.
 - Refer to: Section 13, Foreign Language, for more guidance.

Section 5: Grade 1 Mode

grade 1 symbol indicator

grade 1 word indicator

grade 1 passage indicator

grade 1 terminator

5.1 Mode indicators

Note: A braille symbol may have both a grade 1 meaning and a contraction (grade 2) meaning. Some symbols may also have a numeric meaning.

- 5.1.1 A grade 1 indicator is used to set grade 1 mode when the grade 1 meaning of a symbol could be misread as a contraction meaning or a numeric meaning.
- 5.1.2 The extent of grade 1 mode is determined by the grade 1 indicator in use.

5.2 Grade 1 symbol indicator :

5.2.1 The grade 1 symbol indicator sets grade 1 mode for the next symbol.

Note: A grade 1 symbol indicator is not required before the letters a, i and o, because they do not have a contraction meaning when they stand alone.

Examples:

the vowels are: a, e, i, o and u

Mrs X and Mr O

J. S. Bach

adagio e cantabile

Add either? or! to each sentence.

```
[question mark and exclamation mark]
```

In Smith⁵⁶ we find ...

```
jim@take2.com
```

5.3 Grade 1 word indicator :::

- 5.3.1 The grade 1 word indicator sets grade 1 mode for the next symbols-sequence or the remainder of the current symbols-sequence.
- 5.3.2 The effect of a grade 1 word indicator is terminated by a space or a grade 1 terminator.

Refer to: 5.5, for the Grade 1 Terminator.

Examples:

I spell it u-n-t-i-d-y.

```
replace I with \frac{E}{R}
```

5.4 Grade 1 passage indicator :: :: ::

- 5.4.1 The grade 1 passage indicator sets grade 1 mode for the next passage.
- 5.4.2 A grade 1 passage is terminated by the grade 1 terminator.

Examples:

He spelt H-o C-h-i M-i-n-h City.

```
Factorise: y = x^2 - 4; y = x^2 - 2x; y = x - x^2.
```

5.4.3 To preserve the natural line-by-line arrangement of the text, e.g. in a computer program or a set of equations in mathematics, place the grade 1 passage indicator on a separate line above the grade 1 text

and the grade 1 terminator on a separate line below the text. When this method is used, precede each indicator by the dot locator for "use" :::::.

Refer to: Section 3.14, General Symbols and Indicators, for the dot locator for "use".

5.5 Grade 1 terminator :::

- 5.5.1 The grade 1 terminator usually follows immediately after the last affected symbols-sequence of a grade 1 passage.
- 5.5.2 Use the grade 1 terminator when it is necessary to terminate grade 1 mode before the end of a symbols-sequence.

Example:

```
p-p-p-p-p-perishing
```

5.6 Numeric indicator ::

5.6.1 Grade 1 mode is also set by the numeric indicator.

Examples:

5.6.2 When grade 1 mode is set by the numeric indicator it is terminated by a space, hyphen, dash or grade 1 terminator.

Refer to: Section 6.5, Numeric Mode.

Examples:

I'll go 3rd-you go 4th.

```
54
```

5.7 Grade 1 mode avoids confusion with contractions

5.7.1 Grade 1 mode is required to prevent a letter from being misread as an alphabetic wordsign.

Refer to: Section 10.1, Contractions.

```
b-1
B-team
ev-er-y-which-way
         ending in –s or –es :: :: ::
viii-x
What have you d-
What have you d...
p. 7
         p.7
p7
Sections (h) and (i).
Did 'e 'n' Ma get to 't?
c/o maître d'
p's and q's.
letter d
```

```
"X marks the spot."
   Dr J. F. Smith, M.D.
   s-p-e-l-l-i-n-g
5.7.2
   Grade 1 mode is required to prevent a letters-sequence from being
   misread as a shortform or as containing a shortform.
   Refer to: Section 10.9, Contractions.
   Examples:
   CD-ROM
   "Hm!" he mused.
   Could you buy a CD/DVD?
     My friends are Fr Ted and Sr Ann.
   the Imm family
   al dente
   Use the ALT key.
   NEC (National Executive Committee)
   ozbrl (Australian listserve)
```

5.8 Grade 1 indicators and capitalisation

5.8.1 A grade 1 indicator precedes a capitalisation indicator.

```
T-SHIRTS FOR SALE
```

5.9 Choice of indicators

Note: An extended grade 1 mode, i.e. grade 1 word or grade 1 passage mode, may be used for non-literary expressions. This is especially useful in mathematics and computer programming texts. However, keeping in mind the general principle that the resulting braille should be as easy to read as possible, it is often appropriate to use contracted braille with a grade 1 indicator for just those symbols that can be misread as contractions. It is recommended that contracted braille is used for email addresses, filenames and web addresses.

5.9.1 As words are most easily recognised when presented in their familiar contracted form, minimise the number of switches between grades, the number of indicators required and the number of cells used.

5: Grade 1 Mode

Examples:

```
un-e-mo-tion-al [rather than]

c-h-e-e-s-e d-d-d-don't d-d-d-dictionary [rather than]

p-p-please [rather than]

s-s-s-s-super-st-stition
```

5.9.2 Reduce the indicators within equations. When reading mathematical expressions, passage indicators are less intrusive than interior indicators.

Refer to: Guidelines for Technical Material, Part 1.7.

Example:

5.10 Optional use of the grade 1 indicator

5.10.1 When an expression in grade 1 mode would be equivalent to the same text in grade 2 mode because no contractions would occur, a grade 1 indicator may be used although it is not required.

Example:

The engine stuttered rm-m-m-m then rm-mm-mm then settled into r-mmmmmmm.

5.11 Use of grade 1 indicators in grade 1 text

5.11.1 In a work entirely in grade 1 braille (that is, using no contractions), grade 1 indicators are not used except as required for other reasons, e.g. for the lowercase letters a-j immediately following digits, and a question mark in an unusual position.

```
C is for candy.
```

Section 6: Numeric Mode

```
digit one
digit two
digit three
digit four
digit five
digit six
digit seven
digit eight
digit nine
digit zero
comma (decimal sign)
full stop (period, decimal sign)
ii to ii
                  digit (in numeric mode only)
to :
                  numeric space plus digit (in numeric mode only)
::
                  spaced numeric indicator (before space)
numeric passage indicator (before space)
numeric passage terminator
•
                  line continuation indicator (at end of line)
. . . .
                  line continuation indicator with space (at end of
                  line)
::
                  simple numeric fraction line (in numeric mode
                  only)
```


Note: These twelve symbols are the ten digits and the two symbols which are used as decimal signs. They are also numeric indicators.

6.1.1 Numeric indicators set numeric mode for the remainder of the symbols-sequence.

6.2 Numeric mode symbols

- 6.2.1 The following symbols may occur in numeric mode:
 - the ten digits;
 - full stop (period);
 - comma;
 - the ten numeric space-digit symbols;
 - simple numeric fraction line; and
 - the two line continuation indicators.

Refer to: Section 11.3, Technical Material, for the definition of a simple fraction and the use of general fraction indicators.

Examples:

```
62
      1959
3,500
      8.93
.7
      0.7
8,93
      ,7
0,7
      par. 4.2.2
The temperature of the universe was
```

[or when print uses spaces:]

```
3/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/8 : 53/
```

6.3 Termination of numeric mode

6.3.1 A space or any symbol not listed in 6.2.1 terminates numeric mode.

```
Examples:
```

```
10:12:2009
9-10
1914–18
2.5-5
8-cab fleet
The score was 4–3
7-5=2
2-1/2
61/4—61/2
7(2)
4—7
4..7
4567
```

6.4 Placement of numeric prefix with full stop (period)

6.4.1 When a full stop (period) is followed by a number, it precedes the numeric prefix : unless it is clear that it is a decimal point.

Examples:

Piano Sonata No.16 in C major is K.545.

6.5 Numeric indicators set grade 1 mode

- 6.5.1 A numeric indicator also sets grade 1 mode. Grade 1 mode, when set by a numeric indicator, is terminated by a space, hyphen, dash or grade 1 terminator.
- 6.5.2 While grade 1 mode is in effect, a grade 1 indicator is not required unless a lowercase letter a–j follows a digit, full stop/period or comma.

Examples:

6.5.3 While grade 1 mode is in effect, contractions may not follow a number.

```
houses4lease He came 4th in the race.
```

6.5.4 Grade 1 mode is terminated by a hyphen or dash, thus allowing contractions to be used again. Therefore, a letter or letters that could read as a contraction will need the grade 1 indicator.

Examples:

```
If you go 1st—will I go 2nd?

I have a 6-CD boxed set.

There are 3 beds in this 4-bed ward.

in 1970—about March

3-dimensional

The 6-can pack—under seat 6-c.

only 4—more please

4-m

20-yr period

20yr period
```


Note: The ten symbols is to is the have the meaning "space and following digit" within a number. Spaces should be represented in this way when they are clearly numeric spaces. For example a single telephone number would be considered as one number, even though it includes country, city, and exchange codes as parts. If it is not clear that a space is a separator in a single number it should be treated as an ordinary space.

6.6.1 When spaces are used as separators within a single number use the ten symbols it to it to represent the space and its following digit.

Examples:

6.7 Treatment of dates, time, coinage, etc.

6.7.1 When transcribing dates, time, coinage, ordinal numbers, postal codes or telephone numbers: follow print punctuation and order of symbols.

Refer to: Guidelines for Technical Material, Part 2, for more examples.

6: Numeric Mode

6.8 Spaced numeric indicator ::

6.8.1 The spaced numeric indicator allows one or more spaces to intervene between the numeric prefix and the root that would normally follow immediately to form a digit or a decimal point or comma.

6.9 Numeric passage indicator **∷** and numeric terminator **∷** ∷

- 6.9.1 The numeric passage indicator sets numeric mode and grade 1 mode for all text until the terminator is reached.
- 6.9.2 The numeric terminator follows immediately after the last affected symbols-sequence, except as in 6.9.4 below.
- 6.9.3 Numeric indicators are not used in a numeric passage and any lowercase letter a-j is preceded by a grade 1 indicator.
- 6.9.4 To preserve the general format of the enclosed text the numeric passage indicator may be placed by itself on a line above and the terminator on a line below the text.

Note: A numeric passage may be useful in cases such as a long worked example in mathematics, a series of arithmetic exercises, or a table with mostly numeric content.

Refer to: Guidelines for Technical Material, Part 4, for spatial arithmetic examples illustrating the use of both the spaced numeric indicator and the numeric passage indicator.

6.10 Division of a number between lines

- 6.10.1 Avoid division of a number between lines unless considerable space is saved. If division is necessary use the appropriate line continuation indicator and observe the following rules.
- 6.10.2 When it is necessary to break a long number across lines, place the break in a logical place—at a numeric space, or after a comma which is being used as a separator—not between two digits.
- 6.10.3 When the division occurs after a separating comma, or between two digits in a number which comprises a large string of digits with no separators, use the one-cell line continuation indicator : at the end of the line.
- 6.10.4 When the division takes place at a numeric space, use the two-cell line continuation indicator : : at the end of the line.
- 6.10.5 Since the line continuation indicators do not terminate numeric mode a numeric indicator is not required in the next line.

Examples:

[or when print uses spaces:]

Section 7: Punctuation

• :	,	comma
• •	;	semicolon
•••	:	colon
• •		full stop (period, dot, decimal point)
• • • •		ellipsis
•••	!	exclamation mark
• •	?	question mark [also]
• •		opening one-cell (nonspecific) quotation mark
· · · · · · · · · · · · · · · · · · ·		closing one-cell (nonspecific) quotation mark
· • · · · · · · · · · · · · · · · · · ·	**	opening double quotation mark
· • · · · · · · · · · · · · · · · · · ·	"	closing double quotation mark
· · · · · · · · · · · · · · · · · · ·	•	opening single quotation mark
· · · · · · · · · · · · · · · · · · ·	,	closing single quotation mark
· • · · · · · · · · · · · · · · · · · ·	«	opening Italian quotation mark (small double
		angle brackets)
. •	»	closing Italian quotation mark (small double
	11	angle brackets)
		nondirectional double quotation mark
•:	•	apostrophe, nondirectional single quotation mark
	(opening parenthesis (round bracket)
· · · • · · · · · · · · · · · · · · · ·)	closing parenthesis (round bracket)
· • • · · · · · · · · · · · · · · · · ·	[opening square bracket
· • · • · • · · • · · • · · • · · • · · • ·]	closing square bracket
· • • · · · • •	<	opening angle bracket
· • · • · · · •	>	closing angle bracket
· • • · · · · · · · · · · · · · · · · ·	{	opening curly bracket (brace bracket)
	}	closing curly bracket (brace bracket)
· • · • · • · ·	/	solidus (forward slash)
· • • · · · · · · · · · · · · · · · · ·	\	reverse solidus (backslash)
:: ••	_	hyphen

	_	dash (when distinguished from hyphen(s) in print)
		long dash
• • • •	_	low line (underscore)
:::::		multi-line opening parenthesis (round bracket)
		multi-line closing parenthesis (round bracket)
		multi-line opening square bracket
		multi-line closing square bracket
		multi-line opening curly bracket
		multi-line closing curly bracket

7.1 General

7.1.1 Follow print for the use of punctuation except for the specific provisions in the Punctuation rules which follow.

U.S.A. W..c.ster W..c.ster

```
2.5%
         2,5%
Yes, please.
No, never!
Shopping list: red, green and yellow peppers; onions; sweet
potatoes (or yams).
.....
         STOP!!
4:30
don't
         Jones'
rock 'n' roll
"Tis late."
```

```
(See above.)
noun(s)
in b) and f)
Balance: ($52.68)
Plaintiff stated, "[m]y causes is [sic] just."
Jan Swan <swanj@iafrica.com>
primary colours {red, blue, yellow}
he/she
          b/fast
9/11
          Jan/Feb
his Gaza Strip / West Bank tour
c:\desktop
self-control
tied 1-1
forty-one or -two
320-foot wingspan
five- or six-pointed star
add –s
"Ask Ms. —, she will know."
```

7.1.2 Only one blank cell follows punctuation in braille even when print uses more space, e.g. at the end of a sentence.

7.1.3 Place a grade 1 symbol indicator before a punctuation mark which appears in a position where it would be read as a contraction.

Refer to: 7.6.4 for an opening nonspecific quotation mark.

Examples:

Replace . with ? where appropriate.

```
[full stop (period) with question mark]
```

Ai!!ams :: :: :: :: :: :: [Khoi-San name for Windhoek in Namibia – "!" represents a letter]

7.1.4 A string of lower punctuation marks may be surrounded by space.

Examples:

7.2 Dash, low line (underscore), long dash and hyphen

7.2.1 Follow print spacing of the dash. However, when the spacing in print is indeterminate or inconsistent, space the dash from adjacent words, unless it is clear that the dash indicates omission of part of a word.

Examples:

We want— we need — more br—

```
[print shows the first dash unspaced from the word "want"].
```

- 7.2.2 When an unspaced dash indicates an omission, do not separate it from the remainder of the symbols-sequence. In all other cases, a dash may be separated from what precedes or follows it at the beginning or end of a braille line.
- 7.2.3 Regardless of the length of the character in print, use one low line (underscore) in braille for each print dash below the line of type which indicates a blank to be filled in.

Refer to: Section 9, Typeforms, for information about underlining.

Examples:

7.2.4 Use a long dash in braille only when print uses both a short and long dash.

Example:

```
Mr D— visits P— regularly — you know that.
```

Hyphen(s) used as dash

7.2.5 Represent a spaced hyphen in print with a spaced hyphen in braille.

```
I'll be ready by 3:00 - well - maybe 3:10.
```

7.2.6 When print uses two adjacent hyphens as a substitute for a dash (e.g. in typing or email), it is permissible to use a dash in braille. Use two hyphens when it is clear that two hyphens are intended, e.g. to represent two missing letters in a word. When in doubt, use two hyphens.

Examples:

```
an expression--such as this--set apart

[Two hyphens are used in print.]

rec--ve
```

```
1ec--ve •: :: .. •• •• •• ::
```

B-- :: :: :: [print uses hyphens]

7.3 Ellipsis **∷** ∷ ∷

7.3.1 Follow print for the number of dots used in the ellipsis. When spacing in print is indeterminate or inconsistent, space the ellipsis from adjacent words, unless it is clear that it indicates the omission of part of a word.

Examples:

```
I... I don't think ...."
```

```
I don't th...."
```

7.4 Solidus (forward slash) :::

7.4.1 When division at a linebreak is necessary following the solidus (forward slash), do not insert a hyphen.

Example:

There were several schoolchildren/teachers/parents present.

7.5 Question mark ::

7.5.1 In the majority of cases, a question mark does not require a grade 1 symbol indicator; however, be mindful of the situations covered in Rules 7.5.2 to 7.5.4 below.

Examples:

```
What??? "What?!" "What?!" "Persons?/people? "What?!" "Wha
```

- 7.5.2 Place a grade 1 symbol indicator before a question mark which appears in a position where it would be read as the wordsign "his" or where it would be read as an opening one-cell (nonspecific) quotation mark.
- 7.5.3 Place a grade 1 symbol indicator before a question mark which is "standing alone".

Example:

```
[?]
```

7.5.4 Place a grade 1 symbol indicator before a question mark which follows a space, hyphen or dash. Any of the punctuation and indicator symbols listed in 2.6.2 of Section 2, Terminology and General Rules, may intervene between the space, hyphen or dash and the question mark.

7.6.1 Use one-cell (nonspecific) quotation marks : and : for the predominant quotation marks in the text in all instances where the specific form of the quotation marks ("double", "single", "Italian" or "nondirectional") has no significance, that is, in the great majority of cases. Indicate the print form of the nonspecific quotation marks on the symbols page or in a transcriber's note.

Examples:

[The examples below are taken from different texts, which have differing predominant quotation marks in print.]

"Why is that?" he asked. [or] 'Why is that?' he asked.

[Two print versions – The first has double quotation marks, the second has single quotation marks.]

the play 'Hamlet' [or] the play "Hamlet"

[Two print versions – the first has single nondirectional quotation marks, the second has double nondirectional quotation marks.]

The letters "b" and "c"

```
....
```

[Double nondirectional quotation marks in print.]

```
the word 'nice'
```

[Single nondirectional quotation marks in print.]

[Double quotation marks in print.]

```
mother-'in-law'
```

[Single quotation marks in print.]

«... in accordance with ...»

[Italian quotation marks in print.]

7.6.2 For secondary or inner quotation marks (that is those other than the predominant quotation marks in the text), use the specific two-cell symbols.

Examples:

```
She said, "Sing 'Happy Birthday'."

[where double quotation marks are used predominantly in print]

She said, 'Sing "Happy Birthday".'

[where single quotation marks are used predominantly in print]
```

- 7.6.3 A pair of opening and closing quotation marks should match. For example, when a specific opening quotation mark is required, then the specific closing symbol is also used.
- 7.6.4 When an opening nonspecific quotation mark would be read as the wordsign "his", use the appropriate specific quotation mark instead.

```
(" ... that is the question.")
```

- 7.6.5 Use one-cell (nonspecific) quotation marks when apostrophes are used as the predominant quotation marks in print. Use specific single quotation marks when apostrophes are used as the secondary or inner quotation marks in print. However, when in doubt as to whether a mark is an apostrophe or a single quotation mark, treat it as an apostrophe.
- 7.6.6 Use nondirectional double :: or single : quotation marks (that is quotation marks without any slant or curl to convey "opening" or "closing") only in the following relatively rare cases:
 - when such symbols are distinguished from directional symbols (as in a discourse on typography)
 - when the symbols are otherwise clearly intended (as in an ASCII listing)
 - when there is no way to infer directionality from context. Otherwise use directional quotation marks.
- 7.6.7 If the opening one-cell (nonspecific) quotation mark appears in grade 1 mode, it will be read as a question mark. To avoid this, place the one-cell opening quotation mark before rather than after any grade 1 indicator. If this isn't possible, use the appropriate specific quotation mark.

Examples:

Spell "W-a-l-k" so the dog stays calm.

note silent letters in n-i-'g-h'-t

7.7.1 Place the appropriate multi-line bracket symbol on each braille line, aligning the symbols vertically. Generally, material is top justified in braille even when it is centred vertically in print.

Refer to: Section 11.8, Technical Material, and *Guidelines for Technical Material*, for more information.

Section 8: Capitalisation

to ::	capital letters A to Z
to iti	capital Greek letters A [Alpha] to Ω [Omega]
	capitals word indicator
	capitals passage indicator
· · · · · · · · · · · · · · · · · · ·	capitals terminator

Refer to: Section 4, Letters and Their Modifiers, for the complete list of capitalised letters in the English and Greek alphabets.

8.1 Use of capitals

8.1.1 Follow print for the use of capital letters.

Note: The transcriber may reasonably reduce the use of capital letters in braille when they are used in print as a visual embellishment – such as for words written in capital letters at the beginning of paragraphs or chapters.

Refer to: Section 9.6, of Typeforms, for how to transcribe small capital letters when used in print as a distinctive typeform.

8.2 Extent of capitals mode

8.2.1 The extent of capitals mode is determined by the capitals indicator in use.

8.3 Defining a capital letter

8.3.1 A capital letter is a two-cell symbol which consists of the prefix (dot six) and the lowercase form of the letter.

M MacPherson and O O'Hara

'Twas Dr. Hamilton-Hall.

```
B-E-L-I-E-V-E
```

8.3.2 Place the prefix dot 6 before a contraction when only its first letter is capitalised.

Examples:

```
Father Edmond Anderson
```

Today, Mr Will Just visited us.

His name is Thomas.

8.3.3 Only a modifier or a ligature indicator can be positioned between a letter and its capitals prefix.

Refer to: Sections 4.2 and 4.3, of Letters and Their Modifiers, for the list of symbols considered to be modifiers to letters.

Examples:

```
Étude
```

Voyage À Nice

8.4 Capitalised word indicator ::::

- 8.4.1 The capitalised word indicator sets capitals mode for the next letters-sequence or the remainder of the current letters-sequence.
- 8.4.2 The effect of a capitalised word indicator is terminated by a space, a single capital letter, a nonalphabetic symbol, or a capitals terminator, but not by a modifier or a ligature indicator.

Examples:

PARLIAMENT

```
ПВФ
NEW YORK
"GO quickly and TAKE CARE!"
ANGLO-SAXON
McGRAW-HTLL
MERRY-GO-ROUND
UPPERCASE-lowercase
LITTLE-RED-RIDING-HOOD-type tales
The d'ARTAGNAN Romances
DON'T
THAT'S
JACK'S FO'C'S'LE
WELCOME TO McDONALD'S
OK'd
RSVP or R.S.V.P.
HOTELS.COM
```

```
The N.A.S.D.A.Q. News

BA(Oxon)

(R)AC

WIND(ward)

I/O

B&B

AT&T

McDONALD@xyz.com

SWIFT & CO.

FREEform

EXAMINE
```

8.4.3 A fully-capitalised hyphenated compound word is correctly capitalised if it is divided at the hyphen, at the end of the braille line.

Note: This means that the new braille line will begin with the capitalised word indicator (which is already required) following the hyphen.

Example:

```
ANGLO-SAXON
```

8.4.4 A hyphen inserted during transcription to indicate word division at the end of a braille line does not terminate capitals word mode.

8.5 Capitalised passage indicator ::::::

- 8.5.1 The capitalised passage indicator sets capitals mode for the next passage.
- 8.5.2 A passage is three or more symbols-sequences and it may include non-alphabetic symbols.
- 8.5.3 A capitalised passage is terminated by the capitals terminator immediately following the last affected symbols-sequence.

```
Examples:
```

```
CAUTION: WET PAINT!
Please KEEP OFF THE GRASS in this area.
THE BBC AFRICA NEWS
PROUD TO BE A ΦBK
FOR SALE: 1975 FIREBIRD
A SFI F-MADE MAN
BUY FAHRENHEIT 9/11 ON E-BAY
A.A. (ALAN ALEXANDER) MILNE
```

8.5.4 A capitalised letter or letters-sequence placed adjacent to the beginning or end of a capitalised passage is not necessarily considered to be part of the passage, especially if it is separated from the passage by a space or punctuation.

8.5.5

```
Examples:
```

```
"... at 11:00 AM"—MARKHAM ECONOMIST AND SUN
STOP RUNNING NOW! It's dangerous.
... (See Attachment A). A CSP (Carriage Service Provider) has
obligations to ...
Go to point A. BUT NOT YET!
He worked for the ABC. A BBC journalist reported ...
When transcribing a capitalised passage which extends over more
than one text element (e.g. a series of paragraphs, or a numbered or
bulleted list of points), each text element is preceded by the
capitalised passage indicator and the capitals mode is terminated only
at the end of the final text element.
Example:
"HE'S GETTING AWAY! HE'S OVER THERE, UNDER THE PORCH."
"I SEE HIM. I'LL CUT HIM OFF FROM THE OTHER SIDE."
"IUMPI"
"I CAUGHT HIM. I CAUGHT MY PUPPY!"
  .. .. .. .. .. .. .. .. .. .. .. ..
```

8.5.6 When transcribing a capitalised passage which extends over more than one text element and where the text elements do not constitute a continuous passage (e.g.: a series of headings), each text element is capitalised separately.

Example:

ON HEALTH AND MEDICINE

INDIGENOUS TEAS DELAY AGING

(READER'S DIGEST: August 1998)

Indigenous teas have been linked in recent studies to improved health and ...

8.5.7 A single heading is capitalised as a unit even if it extends over more than one braille line.

Example:

LIST OF SURVEY RECIPIENTS ORGANISED BY COUNTRY

8.6 Capitals terminator :..:

- 8.6.1 The capitals terminator is placed after the final capitalised letter either within or following the symbols-sequence.
- 8.6.2 The capitals terminator may precede or follow punctuation and other terminators but it is best that indicators and paired characters such as parentheses, square brackets and quotes be nested. That is, close punctuation and indicators in reverse order of opening.

Examples:

```
He shouted "I WILL NOT!"

ROMEO AND JULIET

IT'S A HOAX! (APRIL FOOL!)
```

8.6.3 If it is necessary to terminate the capitals mode before the end of a symbols-sequence, place the capitals terminator after the last affected letter of either capitals word mode or capitals passage mode.

8.7 Placement of indicators

8.7.1 The dot 6 prefix, the capitalised word indicator or the capitalised passage indicator is placed immediately before the first capitalised letter or modifier to that letter, such as a cedilla, grave accent or circumflex. Only a modifier or ligature indicator may come between the capitals indicator and the letter.

Refer to: Sections 4.2 and 4.3, of Letters and Their Modifiers, for the list of symbols considered to be modifiers to letters.

Examples:

```
"So?"
        [Σ]
Voyage À Nice
'TIS
        CD :: :: :: ::
Hippity-HOP
ÉTUDE
Unified English Braille (UEB)
AC SMITH
V-NECK SWEATERS FOR SALE!
```

8.8 Choice of capitalised indicators

Note: While the default treatment for a sequence of capital letters is capitals word mode, there are situations where the transcriber has a choice between using either individual capital letters or capitals word mode. If both choices will render an unambiguous transcription, interpret the following rules as guidelines.

8.8.1 Choose the method which retains the usual braille form.

```
Examples:
```

```
XXXI XXXIst

OK OKd

CD CDs

RV: Recreational Vehicle—Let's go RVing.

www.BLASTSoundMachine.com

www.BLASTsoundmachine.com
```

8.8.2 Choose the method which best conveys the meaning. In particular, choose a method that avoids the need for capital indicators or terminators within natural subunits of an expression.

Note: In the examples below such subunits are the chemical element Br in KBr, the abbreviation Sc in BSc or the word Ontario in TVOntario.

Examples:

```
KBr (potassium bromide)
```

BSc (Bachelor of Science)

WooooooOOOOOOoooooo (a ghostly sound)

8.8.3 Choose the method which gives consistency throughout a single title.

Examples:

8.9 Accented letters in fully capitalised words

8.9.1 When in print an accented letter in a fully capitalised word is shown in lowercase, the lowercase representation may be ignored in braille, except when facsimile transcription is required. Such practice should be explained in a transcriber's note.

```
PREMIÈRE

ESPAÑOLA

The accented letters are lowercase in the printed examples.]
```

Section 9: Typeforms

- italic symbol indicator
- italic word indicator
- italic passage indicator
- italic terminator
- boldface symbol indicator
- boldface word indicator
- boldface passage indicator
- boldface terminator
- underlined symbol indicator
- underlined word indicator
- underlined passage indicator
- underlined terminator
- script symbol indicator
- script word indicator
- script passage indicator
- script terminator
- first transcriber-defined typeform symbol indicator
- first transcriber-defined typeform word indicator
- first transcriber-defined typeform passage indicator
- first transcriber-defined typeform terminator

Note: Typeform indicators consist of two parts: a prefix and a root. The prefix designates the typeform and the root determines its extent. Additional transcriber-defined typeforms may be formed using the following prefixes:

- prefix for second transcriber-defined typeform
- prefix for third transcriber-defined typeform
- prefix for fourth transcriber-defined typeform
- prefix for fifth transcriber-defined typeform

9.1 Deciding when to use typeform indicators

Refer to: 9.7 for guidance on the placement of typeform indicators and terminators in relation to opening and closing punctuation.

- 9.1.1 Despite wide use of different typeforms in print, it is not always necessary to indicate them when transcribing into braille. For example, print will commonly use a distinctive typeface for headings. This usage is generally ignored in braille where formatting will distinguish the headings from the rest of text. Also the print practice of italicising all variables in technical material is ignored.
- 9.1.2 Typeform indicators are considered necessary in braille when the print change in typeform is significant because it indicates emphasis or shows distinction, e.g. foreign words in English text, titles within text, subject headings on paragraphs, silent thought, computer input distinguished from computer output, or the class of a variable in mathematics.
- 9.1.3 When it cannot be determined whether or not a change of typeform is significant, indicate the change.

Examples:

[The lowercase letter I is in a different font only to distinguish it from the numeral 1.]

Go to http://www.iceb.org to learn about UEB rules and examples.

[This example shows two underlined hyperlinks both of which can be activated in the electronic print file. The first is considered a print enhancement which need not be shown in braille. The second marks embedded text and unless shown as such the braille reader is unaware of the presence of the link.]

Let the vector field \mathbf{v} at P be equal to $\mathbf{v}(P)$. Then we can form the scalar product $\mathbf{v}(P)$.d \mathbf{s} .

[The three letter P's are italicised, but all single capital letters in this text are italicised so it is not considered significant.]

CHAPTER 6

On Tuesday, a meeting of portfolio managers was held

[The change in typeform for the heading is ignored. The typeform change at the beginning of the paragraph is an embellishment used at the beginning of each chapter in the book and is ignored for this transcription.]

9.2.1 A typeform symbol indicator sets the designated typeform for the next letter or symbol.

Examples:

```
the set of real numbers, \Re
```

.... ..

9.2.2 When a typeform symbol indicator precedes a contraction, only the first letter is affected.

Examples:

I have enough knowledge.

("Beyond belief!")

Which bowl is broken?

```
M is for Mother
```

9.2.3 If any letter of a contraction other than the first is to be preceded by a typeform symbol indicator, the contraction is not used.

Examples:

mother mother mother mother

```
[Notice that in a word such as mother, where the contraction for mother is not used, the contractions for the, th or er may be used.]
```


- 9.3.1 A typeform word indicator sets the designated typeform for the next symbols-sequence or the remainder of the current symbols-sequence.
- 9.3.2 The effect of the typeform word indicator is terminated by space (but not by a numeric space or by space at the end of a braille line in a divided symbols-sequence).

Refer to: 9.4 for more information and examples.

```
Who is <u>for</u> the people?
```

```
R.S.V.P.
l'oeil-de-boeuf (Fr.: bull's eye)
[or divided at the end of the braille line]
 one two–three
1,500,000 1 500 000
1939-1945
 [or divided at the end of the braille line]
 on the paper was written 555 1982
13.86666...
Go to http://www.wikipedia.org for general information.
the ionogenic (ion-forming) form
... referred to as sea waves or (from the Japanese) tsunami.
HarperCollins Publishers
```

N(*S*) is called the **empty set** or **null set**.

9.4 Typeform passage indicators and terminators

- 9.4.1 A typeform passage indicator sets the designated typeform for the next passage.
- 9.4.2 A passage is three or more symbols-sequences.
- 9.4.3 A passage is terminated by the designated typeform terminator following the last affected symbol.
- 9.4.4 A typeform word indicator may also be terminated within a symbols-sequence by the designated typeform terminator.

Refer to: 9.7, 9.8 and 9.9.

Examples:

Today's lunchbox note says You can do it!

Charles Dickens wrote *Oliver Twist, Great Expectations* and *A Tale of Two Cities*.

Maybe as an adverb is one word: *Maybe it will rain tomorrow*. **May be** as a verb phrase is two words: *He may be home soon*.

Click the **Up One Level** button.

When using the typewriter, <u>words were underlined</u> but, when using a word processor, *the italic font is preferred*.

In C:\My Documents\letter to dad 041023.doc, the underlined part is the filename.

and/or in the state of the stat

syllable emphasis

Radar is from radio detecting and ranging.

Harper Flamingo Canada

the *Globe*'s business section

9.5.1 Use transcriber-defined typeform indicators for significant print typeform changes other than italics, boldface, underlining or script. This includes but is not limited to: different-sized type; coloured type; crossed-out type; sans serif font; and double, dotted, coloured or wavy underlining. List the transcriber-defined typeform

indicator on the special symbols page or in a transcriber's note giving the print typeform it represents.

Refer to: 9.6 for discussion and examples of small capitals.

Examples:

In response to the prompt Insert the CD-ROM in drive E:, you put the compact disk in drive E, and press Enter.

[In this case the first transcriber-defined typeform is used to indicate a change to a Courier New font.]

Your monday is mutch much busier than my is mine.

[In this case the second transcriber-defined typeform indicates double underlining, the third indicates crossed-out text and the fourth indicates dotted underlining.]

9.6 Small capitals

Note: Small capitals are letters formed as capitals but generally having the same height as lowercase letters such as a, c and e. Print most commonly uses small capitals in two ways as described below.

9.6.1 Although within a document all abbreviations and/or Roman numerals may be in small capitals, in braille these are best transcribed as capitals.

Refer to: Section 8, Capitalisation.

Examples:

9.6.2 Print sometimes uses small capitals for emphasis or distinction. These can usually be recognized by the use of regular size capitals for the letters of the small capitals text which are capitalised. When the

change in typeform is significant, use a transcriber-defined typeform indicator in braille.

9: Typeforms

Example:

The newspaper headline was Earthquake Kills Thousands.

[In this case the fifth transcriber-defined typeform indicates small capitals.]

9.7 Placement of typeform symbols with punctuation

Note: In determining the placement of typeform indicators and terminators in relation to opening and closing punctuation, interpret the following rules as guidelines.

9.7.1 It is preferred that typeform indicators and terminators and any paired characters such as parentheses, square brackets and quotes be nested; that is, close punctuation and indicators in reverse order of opening.

Examples:

plays (such as Romeo and Juliet)

"Venite exultemus Domino!" his father sang.

9.7.2 When it is clear in the print copy that punctuation is not included in a specific typeform and when a typeform terminator is required for other reasons, place the typeform terminator at the point where the typeform changes. When there is doubt, except for the hyphen, dash and ellipsis, consider the punctuation as being included in the typeform.

Examples:

```
Hänsel und Gretel, a fairy tale
```

out-*of-the*-way

Brevity is the soul of wit.—Shakespeare

Remember Do unto others ...

9.7.3 For better readability, ignore a change in typeform for closing punctuation when a typeform word indicator is used. Similarly, ignore a change in typeform for incidental punctuation within a passage. However, do not ignore the change when it is important for an understanding of the text, such as when typeforms are being studied.

Examples:

```
Did you read <u>Hamlet?</u>
[The question mark is not underlined in print.]
```

"Help! I'm falling."

```
[The quotes are not in italics in print.]
```

The reading list included: **Jane Eyre**, **Measure for Measure**, **All Quiet on the Western Front**, <u>The New York Sunday Times</u>, **Evangeline**, and from Winnipeg, <u>The Beaver</u>.

[All punctuation is in the regular typeface in print.]

Foreign words (such as buon giorno) are italicized.

```
[Typeforms are being studied.]
```

9: Typeforms

9.8 Multiple typeform indicators for the same text

9.8.1 The order for typeform indicators in braille is not prescribed. Therefore, when braille requires the use of two (or more) different typeform indicators for the same text, the indicators and terminators are best nested – meaning that the first typeform to be opened is the last typeform to be closed.

Examples:

The object of the following sentence is underlined: Lucy Maud Montgomery wrote *Anne of Green Gables.*

the bank's dictum: *Pecunia Felicitatibus Honoratur. Money welcomed gladly.*

9.9 Typeform passages extending across consecutive same text elements

9.9.1 When transcribing a typeform passage which extends over more than one text element (e.g. a series of consecutive paragraphs), each text element is preceded by the typeform passage indicator and the typeform is terminated only at the point where the typeform changes.

Section 10: Contractions

10.1 Alphabetic wordsigns

• :	• • • • • • • • • • • • • • • • • • •	but
••	•	can
•• ••	• • • • • • • • • • • • • • • • • • • •	do
• · : •		every
••	• • • • • • • • • • • • • • • • • • •	from
•••	• • • · • · · • · · · • · · · · · · · ·	go
•••	• • • • • • • • • • • • • • • • • • •	have
••	· • • · · • · • · · · · · · · · · · · ·	just
•:		knowledge
• · • · • ·	• · • • • • • • • • • • • • • • • • • •	like
••	• • • • • • • • • • • • • • • • • • •	more
• • • • • •	• • • • • • • • • • • • • • • • • • •	not
•••	• • • • • • • • • • • • • • • • • • •	people
•••	• • • • • • • • • • • • • • • • • • •	quite
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • •	rather
••	· • • · • · • · • · • · • · • · • · • ·	SO
••	• • • • • • • • • • • • • • • • • • • •	that
• • • • • • • • • • • • • • • • • • • •	• · · • · · • · · · · · · · · · · · · ·	us
• •	• • • • • • • • • • • • • • • • • • •	very
••	· · · · · · · · · · · · · · · · · · ·	it
••	• • • • • • • • • • • • • • • • • • • •	you
• •	• · · • · · · · · · · · · · · · · · · ·	as
• •	• • • • • • • • • • • • • • • • • • •	will

10.1.1 Use the alphabetic wordsign when the word it represents is "standing alone".

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

Examples:

When will Will meet us?

```
Every child from here knows Mr More.
"do re mi fa so"
That is quite fair and very just.
"People, people who need people"
I do not like that watering-can!
But, would the people rather do the can-can for us?
"You so-and-so-go away!"
"I do have some-but I would like more!"
You can go-but not yet-just wait!
last will and testament
a child-like manner
will-o'-the-wisp
"Do-It-Yourself"
come from-not go to
(just say so)
As You Like It
Knowledge is power.
But:
likes and dislikes
childlike and likeness
moreover and evermore
```

10.1.2 Use the alphabetic wordsign when the word it represents is followed by an apostrophe with the following letters: d, ll, re, s, t, ve, provided the resulting word is standing alone.

Examples:

```
it'd
               you'd
it'll :: : : :
               that'll
               you're
you'll
people's :::::
               so's
you's
               can't
you've
It's not "its"
Thomas More's life
Mr Just's house
I can—you can't!
"You've done it!"
But:
               you'm
more'n
```

10.1.3 Preferably do not use the alphabetic wordsign when it is known, or can be determined from the text, or by reference to a standard

dictionary, that the letters the wordsign represents are pronounced separately as in an acronym or abbreviation.

Examples:

```
US :: :: [United States]
```

IT :: :: :: [Information Technology]

But:

```
CAN Network
```

```
GO Train
```

[Government of Ontario, pronounced "go"].

10.1.4 Do not use the alphabetic wordsign for a syllable of a word shown in syllables.

Examples:

```
but-ton be—have be—have be—have dis as ter
```

10.2 Strong wordsigns

```
child
shall
shall
this
which
out
still
```

10.2.1 Use the strong wordsign when the word it represents is "standing alone".

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

Examples:

I shall still find out which **child** did this!

```
Which CHILD-PROOF lock?
still-life and whiskey-still
(This way out!)
"Which way out?"
But:
childish :: :: :: :: :: ::
             without :: :::
             shallow :: :: :: :: ::
shallot :: :: :: :: :: ::
whichever :::::::::::
             this/that
Stillson wrench
www.universalchildcare.ca
```

10.2.2 Use the strong wordsign when the word it represents is followed by an apostrophe with the following letters: d, ll, re, s, t, ve, provided that the resulting word is standing alone.

```
this'd is it is which'll is it is which've is it is it which've is it is
```

10.3 Strong contractions

and for of the

10.3.1 Use the strong contraction wherever the letters it represents occur unless other rules limit its use.

```
pandemic :: :: :: :: ::
         afford :: :: :: ::
         Fortran
forgo ::::
lofty
often
         sofa :::::
roof
tofu :: :: ::
         whereof ::::
Athens :: :: :: :: ::
         bathed :::::::
         bother
         theatre :: :: :: ::
thee :::
```

```
forthwith ::::
withe :::
           without :: :::
with a knowledge of and respect for the rules
Thelma's roof will withstand the force of the wind and/or the rain.
Andy Vandyke proofread the profile.
out-of-the-way
But:
chifforobe
           thence ::::
Sontheimer
```

10.4 Strong groupsigns

ch gh sh th • · : • wh :: ed ••• er • ou OW st ing ar

10.4.1 Use the strong groupsign wherever the letters it represents occur unless other rules limit its use.

```
aerial
              aghast :: :: ::
argh!
bear :::::
              boredom .....
cheddar ::::::
              cough :::::
cherished :: :: :: :: ::
coupon
              cringed
dingy :::::
dough :::::
              ed. ::::
Edith
              e'er
er- ::::::
              erase ::::::::
Erie :::::
              error :::::::
ginger ::::
              Goering
gingham :: :: :: ::
lingerie
              lowdown
mistake :: :: :: :: :: ::
              nth :::
'ounds :: :: :: ::
"Ow!"
              psst
redistribute : : : : : : : : : : : : reroute
              sheer :::::
```

```
sou'east
       thorough :: :: :: :: ::
       thou :::
toward :::::
       whistle
wharf :::
       xxist :::::
Xth ∷∷∷
But:
blessèd
       deshabille
       kilowatt
```

ch, sh, th, wh, ou, st

Ste Anne

10.4.2 When the use of a strong groupsign for "ch", "sh", "th", "wh", "ou" or "st" would be misread as a word, braille the letters individually.

Refer to: Section 10.2, for further explanation about using these signs to represent words.

ing

10.4.3 Use the strong groupsign for "ing" wherever the letters it represents occur except at the beginning of a word.

Note: The beginning of a word is defined as the letters-sequence which follows a space, hyphen or dash and which may be preceded by the punctuation and indicator symbols listed in Section 2.6.2, Terminology and General Rules.

Examples:

```
finger ::::
                 ginger ::::
singe :::::
                 singeing ::::::::::
sting :::
                 stinging :::::
brown(ing)
                 Ch'ing Dynasty
But:
ingot ::::::
                 Ingoldsby ......
ingredients ingrown ingrown ingrown
to-ing and fro-ing
brown-ing
Smith-Inge
```

10.5 Lower wordsigns

```
•
                   be
     • •
                   enough
::
     were
• •
     his
     • • • •
•
                   in
     . .
                   was
```

be, were, his, was

Note: These same signs may also represent punctuation signs.

10.5.1 Use the lower wordsign for "be", "were", "his" or "was" when the word it represents is "standing alone". However, the lower wordsign is not used when in contact with any punctuation sign, including the hyphen and dash, that has only lower dots. For the purposes of this rule, any type of quotation mark which may be present is considered to have only lower dots. When a capitals indicator or a capitals terminator is present, it is disregarded in determining whether to use the lower wordsign.

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

```
to be
          his car :
Be good.
         HIS DOG
That was right!
BE ALL THAT YOU CAN BE
Be happy.
to be or not to be
his hers its
"Was that his car?"
He is [was]; they are [were].
(Were there many?)
But:
his/her
What will you be?
would-be actor
```

```
That were—I mean was—mine.
```

```
"Be safe."

"Was that his?"

"His mother owns "his" car.'
```

enough

10.5.2 Use the lower wordsign for "enough" when the word it represents is "standing alone". When a capitals indicator or a capitals terminator is present, it is disregarded in determining whether to use the lower wordsign. The lower wordsign is also used in the word "enough's".

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

Examples:

```
it was enough 👯 👪 😘
```

```
GIVE MORE THAN ENOUGH
```

Buy meat (enough for 2).

(Did you have *enough* help? Just enough.)

Enough's happened.

Mum's had-enough mood

But:

```
www.enoughforall.org
```

in

10.5.3 Use the lower wordsign for "in" wherever the word it represents occurs provided that any sequence in which it occurs includes a sign with an upper dot. For the purposes of this rule, any type of quotation mark which may be present is considered to have only

lower dots. When a capitals indicator or a capitals terminator is present, it is disregarded in determining whether to use the lower wordsign.

```
Examples:
not in here : : :: :::
In or out?
GO ALL IN
in't
mother-in-law
listen-in
Listen!—In this case ...
"teach-in"
IN-DEPTH
("In no way.")
fade in
-in
In the box
after before between in
[open tn]In the table ...[close tn]
<in file>
in/out
But:
Come in, stay in.
"In any case"
'Is that "in"?'
```

Lower sign rule

10.5.4 Use the lower wordsigns for "enough" and "in" with any number of lower punctuation signs provided the sequence includes a sign with upper dots. For the purposes of this rule, any type of quotation mark which may be present is considered to have only lower dots. If there is not a sign with upper dots in the sequence, do not use the final lower wordsign.

Examples:

It was enough—more than enough.

```
We had enough—5. "That's enough!"—in a firm voice

Take enough. "In a firm voice "In a firm voice"

Take enough. "In a firm voice "In a firm voice"

Take enough. "In a firm voice "In a firm voi
```

10.6 Lower groupsigns

```
•
             ea
      he
• :
      bb
• •
      con
••
             CC
• •
      dis
• •
      en
      •
             ff
     ::
             gg
. .
      in
```

be, con, dis

10.6.1 Use the lower groupsign for "be", "con" or "dis" when the letters it represents form the first syllable of a word.

```
Examples:
```

```
behemoth
                                                                                                                                                                             being :::
beta :: :
first-begotten
air-conditioned is in the second in the seco
congress :: :: :: :: ::
control :: :: :: ::
                                                                                                                                                                             re-connect
disaster :::::
                                                                                                                                                                             disco :::::
dislike :: : : : :
self-discipline
But:
been :::::
best :::::
                                                                                                                                                                             bethel ::::::
                                                                                                                                                                             conch ::::::::
con ::::::
cone :: ::::
                                                                                                                                                                             coneys :: :: :: ::
disc :: :: ::
                                                                                                                                                                             dish :: ::
dispirited :: :: :: ::
disulphide is it i
```

10.6.2 Use the lower groupsign for "be", "con" or "dis" only at the beginning of a word and only when followed by a letter, a contraction, a modified letter or a ligatured letter.

Note: The beginning of a word is defined as the letters-sequence which follows a space, hyphen or dash and which may be preceded by the punctuation and indicator symbols listed in Section 2.6.2, Terminology and General Rules.

Examples:

But:

```
O'Connor
```

```
MetroDisco
```

```
be'ave be-stow be-stow
```

dis'armony is it i

10.6.3 Do not use the lower groupsign for "be", "con", or "dis", when the letters it represents are followed by a capitals indicator or a capitals terminator.

Examples:

```
BeLinda conCUR conCUR DISlike
```

10.6.4 Use the lower groupsign for "be", "con" or "dis" in an abbreviation when it is used in the unabbreviated form of the word and when it is followed by at least one other letter.

Note: If the unabbreviated form is not known and cannot be determined from the text or by reference to a standard dictionary, it is permissible to use the lower groupsign.

Examples:

```
Conn. [Connecticut]

cont [Continued]

dist. [Continued]

mod cons [Continued]

mod cons [Conveniences]

But:

BEd [Bachelor of Education]

Belg [Belgium]

bet [Belgium]

Bev [Belgium]

Con. [Consolidated]
```

ea, bb, cc, ff, gg

10.6.5 Use the lower groupsign for "ea", "bb", "cc", "ff", or "gg" when the letters it represents are both preceded and followed by a letter, a contraction, a modified letter or a ligatured letter unless other rules limit its use.

Note: These signs may also represent punctuation signs.

```
abbé :: :: :: :: ::
                     accept :: :: :: ::
account :: :: ::
                     acreage :: :: :: :: :: ::
                     affirm :: :: :: :: :: ::
                     areas : : :
agreeable :: :: :: :: :: :: :: ::
begging :::::::::
beat :: ::
bubble :: ...
                     bureau :: :: :: :: ::
```

```
create :: :: :: ::
caveat :: :: :: ::
creation :: :: :: :::
             disease :: :: ::
doggone :: :: :: :::
             flaccid :: :: :: :: :: ::
             head ::::
             Liliaceae
likeable
muffin ....
oceanic : :: :: :: :: ::
             paean ::::::::
rabbi : :: :: ::
             réchauffé
really :: :: :: ::
Sean :: :: ::
Seattle
             sheriffs :: :: :: :: ::
speakeasy :: :: :: :: :: :: :: ::
             tobacco :: :: :: :: :: ::
             Yeats :::
But:
             appear :: :: :: :: ::
afford :: :: :: ::
```

```
bear :::::
       coffee :: :: :: ::
       'ead ::::::::
       east •••••
ebb : : :
       ebb-tide
idea(s)
limeade
robb'd
sou'east
       tea ::::::
       theatre
```

10.6.6 Do not use the lower groupsign for "ea", "bb", "cc", "ff", or "gg" when the letters it represents are preceded or followed by a capitals indicator or a capitals terminator.

Examples:

```
CliffSide

EggHead

MacEACHEN

SeaWorld

TEAspoon
```

ea

10.6.7 Do not use the lower groupsign for "ea" when the letters "ea" bridge a prefix and the remainder of the word.

```
Examples:
```

```
deactivate geanticline preamble reaction
```

en, in

10.6.8 Use the lower groupsign for "en" or "in" wherever the letters it represents occur unless other rules limit its use.

```
arena :::::
            begin :::::
been ::::::
            be'ind
            binomial .....
binary ....
china ::::
deafen :: :: ::
            denote
deny :::::
            double-entendre
e'en :: ::
            enceinte
            engine :: :: ::
Fnid
            equinox :: :: :: :: :: ::
            qoin'
haven't
            henna :::::
            Inc.
```

```
ingot :: :: ::
         in's ::::
         into .....
phoenix : :: :: :: :: ::
         queen ::::::::
         renew :::::::
within :: ...
to-ing
But:
cringed :: :::::
fenced :::::::
```

10.6.9 To prevent it from being misread as "enough", do not use the lower groupsign for "en" when the letters "en" are "standing alone".

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

Examples:

```
Aix-en-Provence Chou En-lai Ch
```

Lower sign rule

10.6.10 Use any number of lower groupsigns and lower punctuation signs following one another provided the sequence includes a sign with

upper dots and no other rules limit their use. For the purposes of this rule, any type of quotation mark which may be present is considered to have only lower dots. If there is not a sign with upper dots in the sequence, do not use the final lower groupsign.

Examples:

10.7 Initial-letter contractions

Dots 45

	• • • • • • • • • • • • • • • • • • •	upon
	· · · · · · · · · · · · · · · · · · ·	these
	· • • · • · • · • · • · · · • · · · · ·	those
• • • • • • • • • • • • • • • • • • • •		whose
	· · · · · · · · · · · · · · · · · · ·	word

Dots 456

cannot
had
many
spirit
their
world

Dot 5

: • • •	•• •• ••	day
: • · · ·	• • • • • • • • • • • • • • • • • • •	ever
: • • • · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	father
: • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	here
•	• • • • • • • • • • • • • • • • • • •	know

```
lord
...........
          mother
  name
one
part
 question
right
some
time
under
young
there
character
through
where
ought
work
```

10.7.1 Use the initial-letter contraction as a wordsign and wherever the letters it represents occur; except for the specific provisions given below; and unless other rules limit its use.

```
foreword in the sword in the sw
```

```
world-wide
          worldly ::::::
day-by-day
          G'day
father-in-law
          fatherless :: :: :: ::
acknowledge
          knowing ::::::
m'lord
mother-of-pearl
          smother :: ::::
part-time
          parterre
party ::::
passe-partout
questionnaire
affrighted :: :: :: :: ::
          aright :::::
right-handed
          righteous :: :: :: :: ::
throughout ::::::::::::
          somewhere :::::::::
```

```
whereby
        wherein :::::
drought ::::::
        fought :::::
oughtn't
thoughtful
workday ::::
        working :::::
But:
today :::
        where'er
```

upon, these, those, whose, there

10.7.2 Use the initial-letter contraction for "upon", "these", "those", "whose" or "there" when its meaning as a whole word is retained.

```
upon these shores

Whose are those?

whereupon

whosesoever

thereby

therein

But:

coupon

Dupont

Theseus

Theseus
```

```
spathose in the interest of th
```

had

10.7.3 Use the initial-letter contraction for "had" when the "a" is short, unless other rules limit its use.

Examples:

```
Galahad
Haddook
Haddook
Hadji
Hadj
```

ever

10.7.4 Use the initial-letter contraction for "ever" when the stress is on the first "e" and when the letters are not preceded by "e" or "i".

```
asseverate beverage everything everything irreverence reverence reverend several Sever
```

But:

```
believer eversion eversion McKeever McKeever persevere reverberate reverify severity severity
```

here, name

10.7.5 Use the initial-letter contraction for "here" or "name" when the letters it represents are pronounced as one syllable unless other rules limit its use.

```
cohere ::::::::::
          herewith ::::
          sphere :: :: :: ::
renamed :: :: :: ::
          But:
bothered .....
heredity ....
Hereford (City)
enamel :::::::::::
          Vietnamese
```

one

10.7.6 Use the initial-letter contraction for "one" when the letters it represents are pronounced as one syllable, or are in a word ending with the letters "oney", or are in the words "honest" or "monetary" and their derivatives. However, do not use the contraction when the letters "one" are preceded by the letter "o" or when other rules limit its use.

```
acetone
baloney
         cone :: ::::
         demonetise
done :: :::
honey ::::::
lonesome
one-sided
oneness :::::::
         phone :::::::
scone ::::::::
         stoney :::::::
But:
baroness ....
Boone
Cantonese
         krone :: :: :: ::
Indonesia .....
Monet
         pioneer :: :: :: :: :: ::
Rhône
```

```
Rooney sooner sooner still stoned stoned sooner still still sooner sooner still still stoned sooner still st
```

some

10.7.7 Use the initial-letter contraction for "some" when the letters it represents form a syllable of the basic word.

Examples:

```
blithesome
      handsome ::::::::
somesuch ::::::
twosome
But:
blossomed (blossom)
ransomed (ransom)
```

time

10.7.8 Use the initial-letter contraction for "time" when the letters it represents are pronounced the same as the word "time".

```
daytime in the interest of the
```

```
untimely :: :: :: :: ::
```

But:

under

10.7.9 Use the initial-letter contraction for "under" except when the letters it represents are preceded by the vowels "a" or "o" and when the letters "un" form a prefix.

Examples:

thundered undergo undergo

But:

```
flounder is in the laundering in the laundering
```

10.8 Final-letter groupsigns

Dots 46

```
ound
ance
sion
less
ount
```

Dots 56

```
ence
ong
ful
```

```
tion

in the second of the sec
```

10.8.1 Use the final-letter groupsign when the letters it represents follow a letter, a contraction, a modified letter or a ligatured letter unless other rules limit its use.

```
amount ::::::::::
        baroness ....
blessing
        cancel :::::::
cement
circuity :: :: :: :: :: ::
        county
deity
        Du Plessis
finesse
        found :::::
governess ....
        lioness : :: :: :: :::
        longevity
```

```
memento :: :: :: :: ::
      noblesse
pity ::::
      prong :: :: :::
rationally
sponge :: :: :: ::
sound
      sublessee
      thence :::::
Tennessee
unless ....
      wounded ::::::
But:
"alone"ness
encephalitis
lessee
```

10.8.2 Do not use the final-letter groupsign when the letters it represents follow a capitals indicator or a capitals terminator.

Examples:

```
AttenTION!

AWful

ELesson

ExperiMental

MyAncestor
```

ity

10.8.3 Do not use the final-letter groupsign for "ity" in the words: biscuity, dacoity, fruity, hoity-toity and rabbity.

ness

10.8.4 Do not use the final-letter groupsign for "ness" when the feminine ending "ess" is added to a word ending in "en" or "in".

Examples:

10.9 Shortforms

• • • • • • • • • • • • • • • • • • • •	about	• · • · • · · · · · · · · · · · · · · ·	above
• · • •	according	• · • • • · · · · · · · · · · · · · · ·	across
• • • • • • • • • • • • • • • • • • • •	after	• · • • • • · · · • · · · • · · · • · · · • · · · • · · · • · · · · • · · · · • · · · · • ·	afternoon
• · • • · • · • · • · • · • · • · • · •	afterward	• · • • · · · · · · · · · · · · · · · ·	again
• • • • • • • • • • • • • • • • • • • •	against	• • • • • • • • • • • • • • • • • • • •	also
• • • • • • • • • • • • • • • • • • • •	almost	• · • · • · · · · · · · · · · · · · · ·	already
	altogether	• · • · • • · · • · · · • · · · · · • · · · • · · · •	although
	always	• • • • • • • • • • • • • • • • • • • •	blind
• • • • • • • • • • • • • • • • • • • •	braille	•• •• · · · •	could
• • • • • • • • • • • • • • • • • • • •	declare	• • • • • • • • • • • • • • • • • • • •	declaring

•••••	deceive	• • • • • • • • • • • • • • • • • • •	deceiving
••••	either	• • • · • · · · · · · · · · · · · · · ·	friend
• • • • • • • • • • • • • • • • • • •	first	• • • • • • • • • • • • • • • • • • • •	good
• • • • • • • • • • • • • • • • • • • •	great	• • • • • • • • • • • • • • • • • • • •	him
• • • • • • • • • • • • • • • • • • •	himself	• • • • • • • • • • • • • • • • • • • •	herself
· • • • • • • • • • • • • • • • • • • •	immediate	• · • · • · • · • · • · • · • · • · • ·	little
• · • · • · • · • · • · • · • · • · • ·	letter	· · · · · · · · · · · · · · · · · · ·	myself
•• ••	much	•• ••	must
• • • • • • • • • • • • • • • • • • • •	necessary	• • • • • • • • • • • • • • • • • • • •	neither
• • • • • • • • • • • • • • • • • • •	paid	•• •• ••	perceive
• • • • • • • • • • • • • • • • • • • •	perceiving	•••••	perhaps
• • • · · · · · · · · · · · · · · · · ·	quick	• · • • • · · · · · · · · · · · · · · ·	receive
• • • • • • • • • • • • • • • • • • •	receiving	• • • • • • • • • • • • • • • • • • • •	rejoice
• • • • • • • • • • • • • • • • • • • •	rejoicing	• • • • • • • • • • • • • • • • • • • •	said
• • • • • • • • • • • • • • • • • • • •	such	• • •	today
• • • • • • • • • • • • • • • • • • • •	together	• • • • • • • • • • • • • • • • • • • •	tomorrow
• • • • • • • • • • • • • • • • • • • •	tonight	•• ••	itself
• • • • • • • • • • • • • • • • • • • •	its	• • • •	your
• • • • • • • • • • • • • • • • • • • •	yourself	• • • • • •	yourselves
• • • • • • • • • • • • • • • • • • • •	themselves	• • • • • • • • • • • • • • • • • • • •	children
• • • • • • • • • • • • • • • • • • • •	should	• • • • • • • • • • • • • • • • • • • •	thyself
• • • • • • • • • • • • • • • • • • • •	ourselves	• • • • • • • • • • • • • • • • • • • •	would
• • • •	because	• • • • • • • • • • • • • • • • • • • •	before
• • • • • • • • • • • • • • • • • • • •	behind	· · • · · · · · · · · · · · · · · · · ·	below
· · • • • • • • • • • • • • • • • • • •	beneath	• • • •	beside
• • • •	between	• • • •	beyond
• • • • • • • • • • • • • • • • • • • •	conceive	• • • • • • • • • • • • • • • • • • • •	conceiving
· · • · • · · · · · · · · · · · · · · ·	oneself		

Shortforms as words

10.9.1 Use the shortform whenever the word it represents is "standing alone", regardless of meaning or pronunciation, and regardless of whether the word is used as an ordinary word or as a proper name.

Refer to: Section 2.6, Terminology and General Rules, for the definition of "standing alone".

Examples:

```
You should receive your letter tomorrow afternoon.
an about-face from the quick-witted go-between
"Good-bye, Miss Little-Smythe!"
(braille-first writing system for blind people)
According to him, neither Little Rock, Much Hadham nor Port Said
would be much fun.
But:
friend@rogers.com
www.living.beyond.myself.org
```

Shortforms as parts of longer words

10.9.2 Use the shortform within a longer word provided that the longer word is "standing alone" (including any affix with an apostrophe) and that the longer word:

- (a) appears on the Shortforms List given in Appendix 1; or
- (b) satisfies the provisions of rule 10.9.3.

Note: Rule 10.9.2 encompasses words which are ordinary words, proper names and artificial or contrived words.

```
Examples:
```

```
aboveground is it is it is belowdecks is it is i
Friendly Islands
godchildren .....
                                                                         hereabouts :: :: :: ::
                                                                         Quicker Delivery
                                                                          suchlike
repaid :::::::
Our boyfriends mustn't miss tomorrow's afterdinner speaker!
 Mr Letterman could've quickly rebrailled the Aftercare Newsletter.
 I am brailling the newsletters' headlines.
But:
[Shortforms are not used in the following examples because the
words they represent are not "standing alone".]
friend(s)
www.afterschool.gov
[These words are not on the Shortforms List pursuant to rules 3–5 of
the Rules for List Construction in Appendix 1.]
```

blinding

```
friendy :: :: :: :: :: ::
abouts :: :: :: :: :: ::
               againe :: :: :: ::
               hims ••••••
               hereinbefore
These words are not on the Shortforms List, and use of the
shortforms they would contain is not allowed under Rule 10.9.3.1
"couldx"
```

Words not appearing on the Shortforms List

- 10.9.3 Use any of the ten shortforms listed below within a longer word that is not on the Shortforms List, provided the word is "standing alone" (including any affix with an apostrophe) and that any restrictions for the shortform are met.
 - (a) "braille" or "great": Use the shortform wherever it occurs.
 - (b) "children": Use the shortform provided that it is not followed by a vowel or "y".
 - (c) "blind", "first", "friend", "good", "letter", "little" or "quick": Use the shortform if it begins the word and is not followed by a vowel or "y".

```
Braillette board

Marcillat-en-Combraille, France

Greatford Hall

Greatgreatgreatgrandchildren

Blindcraft

Blindheim
```

```
Firstchoice
Firstbank
"goodz"
Mr Feelgreat from Goodge Street
Ms Letterkenny's Littleport home.
Quicksburg, Virginia
But:
www.braillex.com
Firstamerica
Goodacre Littlearm Littlearm
Letterewe Estate
Mr Linkletter of Portlittle
Bisquick Pancake Mix
Ted Makegood of Goodena
```

Avoiding confusion with shortforms

Note: Use the most appropriate of the following rules to avoid confusion if a letters-sequence "standing alone" could be read as a shortform, or as containing a shortform.

10.9.4 Do not use a groupsign that would form part of the shortform.

But:

10.9.5 Use a grade 1 symbol indicator before a letters-sequence that could be read as a shortform when "standing alone", or which occurs at the beginning of a longer letters-sequence.

```
Examples:
```

```
ab initio et al— et al— Al-Azar Al-Azar Alt.: 3000 ft. Alt.: 3000
```

10.9.6 Use a grade 1 word indicator before a longer sequence when a letters-sequence after the beginning could be read as a shortform. No other contractions may be used within the longer sequence.

10.10 Preference

- 10.10.1 Where there is more than one possible choice in the use of groupsigns, make the selection based on the following principles, unless other rules apply.
- 10.10.2 Give preference to the groupsign which causes a word to occupy fewer cells.

Examples:

```
aright :::::
bastion :: :: :: ::
               dancer :: :::::
dispirited :: :: :: ::
               distinct :: :: :: ::
meander :: :: :: ::
               named ::::
oneness ::::::
               thence :::::
timer :::::
               wither :: ::
But:
```

10.10.3 Give preference to the strong contractions provided their use does not waste space.

```
afford in the state of the stat
```

```
then it is theatre it is the weathered weathered it is the interest in the weathered it is the interest in the interest in the weathered it is the interest in the interest in
```

10.10.4 Use the lower groupsign for "be", "con" or "dis" in preference to other groupsigns when the letters it represents form the first syllable of a word.

Examples:

```
benevolence
berated :: :: :: ::
congee :: :: ::
            congenial :: :: :: :: ::
But:
beach ::::
            beautiful
bed :::
            benefit .....
benzene
            berth ::::
dish :::::
```

10.10.5 With the exception of 10.10.4 above, use the strong groupsigns in preference to the lower groupsigns.

```
bacchanal in the street bear in
```

```
But:
```

10.10.6 Use the final-letter groupsign for "ence" in the letters-sequences "encea", "enced" and "encer".

Examples:

```
Clemenceau commenced commence commenced commen
```

10.10.7 With the exception of 10.10.6 above, use the strong groupsigns and the lower groupsigns in preference to the initial-letter contractions and the final-letter groupsigns provided their use does not waste space. [Space-saving takes precedence over this rule.]

```
heredity ....
shadow :: :: :: ::
    stoned :::::
    toner :::::
But:
```

10.10.8 Select the groupsign which more nearly approximates the usual pronunciation of the word and which does not distort the form of the word.

Examples:

```
apartheid is in the second asthma is in the second ast
```

10.10.9 Do not use a groupsign if its use would seriously distort the pronunciation or hinder the recognition of the word.

Examples:

Lower sign rule

10.10.10 Do not use the final groupsign or wordsign in a sequence that would otherwise consist wholly of lower signs. For the purposes of this rule, any type of quotation mark which may be present is considered to have only lower dots. When a capitals indicator or a capitals terminator is present, it is disregarded in determining whether to use a lower wordsign.

```
enough—bein' (included in items) (included in
```

10.11 Bridging

Compound words

10.11.1 Do not use a groupsign which would bridge the words which make up an unhyphenated compound word.

Examples:

```
Airedale
 cowherd :: :: :: :: :: ::
wiseacre
```

Aspirated "h"

10.11.2 Do not use the strong groupsigns for "ch", "gh", "sh", "th", or "wh" or the strong contraction for "the" when the "h" is aspirated.

```
mishap in the stronghold in th
```

Prefixes

10.11.3 Use the lower groupsign for "be", "con" or "dis" when the letters it represents form the first syllable of a word.

Examples:

```
bedazzle bedevil bedevil bedevil benumb benumb benumb benumb berate berate congruent disharmony disharmony bedevil disharmony b
```

10.11.4 Do not use the lower groupsign for "ea" when the letters "ea" bridge a prefix and the remainder of the word.

Examples:

10.11.5 With the exceptions of 10.11.3 and 10.11.4 above, in general use a groupsign which bridges a prefix and the remainder of a word unless its use would hinder the recognition or pronunciation of the word. In particular, use the groupsigns for "ed", "en", "er", "of" and "st".

```
abbreviate is it is it is it is accent is it is it is
```

```
affect :: :: :: ::
arise :::::
deduce :::::::::
denote :: :: :: ::
         derail :: : : : :
         edacious :: :: :: :: :: ::
         edict ::::::
edition :: ::::
         educe ::::::
enounce :: :: :: ::
erase :::::::
         froward :: :: :: :: ::
erosion
         irredentist
mistake :: :: :: :: :: ::
         predecease
         predominate
prerequisite
prerogative
profile :: :: :: ::
```

```
rededicate
      renegotiate
reread :::::::::
      sedate :: :: :: ::
Vandyke
But:
biofeedback ......
inessential ......
      kilowatt
riboflavin
      underived ......
```

10.11.6 Use a groupsign when the addition of a prefix or the formation of an unhyphenated compound word provides an opportunity to use a groupsign not used in the original word, even if this alters the usual braille form of the original word. However, do not use the groupsign if its use would hinder the recognition or pronunciation of the word.

```
anteater contradistinction contradistinction extramental extramental incongruity incongruity
```

```
indistinguishable indistinct indistinct indistinguishable indistin
```

Suffixes

10.11.7 Generally, use a groupsign which bridges a word and its suffix unless its use would hinder the recognition or pronunciation of the word.

```
acreage :: :: :: :: :: ::
    baroness ....
finery :::::
laureate
likeable
    lineage
```

```
lineal ....
      lioness :: :: :: ::
venereal :: :: :: ::
savagery
But:
Chisholm
      citizeness
rabbity
      twofold
```

10.11.8 Use the lower groupsign for "ea", "bb", "cc", "ff" or "gg" at the end of a word when a suffix is added to the word or when it is the first word in an unhyphenated compound word.

Examples:

```
eggplant is it is
```

Diphthongs

10.11.9 Generally, use a groupsign which bridges a diphthong and an adjoining letter unless the diphthong is printed as a ligature.

```
Betws-y-Coed
Blaenau Ffestiniog
Caernaryon Caernaryon Daedalus Caernaryon Daedalus Caernaryon
faerie
           Goering
maenad :: :: :: :: ::
paean ::::::::
           phoenix :: :: :: :: :: ::
But:
færie
```

10.12 Miscellaneous

Abbreviations and acronyms

10.12.1 Preferably, when it is known, or can be determined from the text or by reference to a standard dictionary, that letters within an abbreviation or acronym that would make up a contraction are pronounced separately as letters, do not use the contraction. In case of doubt, use the contraction.

```
MSH :: :: : : : [Markham-Stouffville Hospital]
     DAR :: :: :: :: [Daughters of the American Revolution]
     EST :: :: : : [Eastern Standard Time]
     TEN/gh :: :: : : : : : : : : : [initials at end of letter]
     ChE :: :: [Chemical Engineer]
     MCh ::: :: :: :: :: [Master of Surgery, from "Chirurgiae"]
     POW :::::::::::::[prisoner of war]
10.12.2 Except as provided for in Rule 10.12.1, use contractions in
     abbreviations and acronyms, following the provisions of Section 5.7.1
     and 5.7.2, Grade 1 Mode, as well as those of Section 10.1 to 10.11.
     Examples:
     Alphabetic wordsigns; See Sections 5.7.1 and 10.1:
     Xft.
                         G.B.S.
     C. P. E. Bach
     J-P. Sartre
     3 N m : [3 newton metres]
     Macbeth V i 8 or V.i.8
     Can : . . . . [Canada]
                           It. [Italian]
     Strong contractions; See Section 10.3:
     prof
```

```
CANDU reactor [Canada Deuterium Uranium]
```

```
Strong groupsigns; See Section 10.4:
```

BCer St St

CHUM Radio

START :: :::: [Strategic Arms Reduction Treaty]

Lower wordsigns; See Section 10.5:

Lower groupsigns; See Section 10.6:

ASEAN SEATO SEATO

Inc. Gov. Gen. Gov. Gen.

Minn. MiniPC MiniPC

MInstP :: :: :: [Member, Institute of Physics]

Shortforms; See Sections 5.7.2 and 10.9:

Computer material

10.12.3 Use contractions in computer material, such as email addresses, web sites, URLs, and filenames when it is embedded in regular text. Use uncontracted braille for computer material, such as computer program code which is displayed on separate lines, as well as any nearby excerpts from the program.

Refer to: Section 11.10.2, Technical Material.

Examples:

```
[These examples are assumed to be within regular text.] braille_it_better@learn.org
```

```
children-do-great@teach.net
```

```
world@large.com
```

www.rubberchicken.com/menus

www.one.in.a.hundred.org

http://www.99chances.com

 $c:\ brailled ocuments \ letters.txt$

c:\contractions\wordsigns.doc

c:\InfoForSteven\PhoneNumbers.xls

```
c:\ideas\child-of-the-sea.doc

c:\poem ideas\my child's smile.doc

c:\2010DIARY\March.txt
```

Dialect

10.12.4 For words in dialect, follow the contraction rules, 10.1 to 10.11.

Examples:

```
coulda iiii [could have] mebbe iii [maybe]
th' : [the]
                     pinny [ [penny]
depity : : : : [deputy] your : [you're]
                     somers ::::::::::: [somewhere]
wher :: [where]
theirselves :: :: :: :: [themselves]
dint ii ii [didn't]
                     bofe :: :: [both]
'stracted :: :: :: :: [distracted]
musta :::: [must have]
fer :: [for]
goodun :: :: :: [good one] lyedee :: :: :: [lady]
```

Fragments of words

10.12.5 For fragments of words, follow print and follow the contraction rules, 10.1 to 10.11.

```
Examples:
```

```
th- say pl... say pl...
```

```
Tell me wh-.
                    -ccio
-ean ::::::::
                     -ence
-ing :::::
                     -ount :: :: ::
-in ......
                     -est :::::
-ed ∷∷
                     -ar ∷∷
ar-
                     be-
                     -S :::::
-es ::::::
~s :::::::
```

Guidelines when pronunciation or syllabification is unknown

10.12.6 Several contraction rules are based on the pronunciation and/or syllabification of the word. The Preference rule states that a contraction is not to be used when it would "hinder the recognition of the word". Sections 10.10.8 and 10.10.9 (the Preference rule) refer to the pronunciation of a word.

These rules represent best practices to be applied when the transcriber or proofreader is familiar with the word, when the required information about the word can be found in the text itself or when it is readily available in reference material at hand, such as a dictionary or braille word list.

Examples:

```
Hades Hermione Newhaven Company Compan
```

10.12.7 When the word is unfamiliar and when the pronunciation or syllabification is unknown and difficult to ascertain, then it is

permissible for contraction use to be based on the best judgment of the transcriber and/or proofreader. When translation software is being used, its contraction usage may be followed.

Examples:

- 10.12.8 The guidelines relating to unknown pronunciation or syllabification apply in particular to proper names, abbreviations, acronyms, contrived words (as in science fiction) and anglicised foreign words.
- 10.12.9 In all cases, consistency within a transcription is required.
- 10.12.10 It is recognized that these guidelines relating to unknown pronunciation and syllabification may result in a particular word being contracted differently from one transcription to another.

Lisping

10.12.11 For lisped words, follow the basic contraction rules of Sections 10.1 to 10.11.

Examples:

Medial punctuation and indicators

10.12.12 When punctuation, an indicator or a terminator occurs within a word, follow print and follow the basic contraction rules of Sections 10.1 to 10.11.

Examples:

```
verY
                                                                       qo'n
you'll
                                                                       child(ish)
this'll
                                                                        out'a
profit
                                                                        "the"s :::::::
with(er)
touched
                                                                       mist-ing :: :: :: :: :: :: :: ::
                                                                       thou're
enough :: :: :: ::
                                                                       his'n
                                                                        in't
(be)long
dissent dissert
                                                                        O'Connor
"en"gage ∷∷∷∷∷∷∷∷
                                                                       uneaten
CliffEdge
                                                                       dragg(ing)
rubb'd
                                                                        there(upon)
                                                                       founDAtion is it is to bound ary is the interest bound ary is the interest bound ary is the interest bound are in the inte
count(less) CarLess CarLess
grey'ound
togetherness
"be"friend
```

Omitted letters

10.12.13 For a word with omitted letters, follow print and follow the rules of Section 5, Grade 1 Mode, and the basic contraction rules of Sections 10.1 to 10.11.

Examples:

Speech hesitation, slurred words, vocal sounds

10.12.14 For a word which shows speech hesitation, slurring or a vocal sound, follow the basic contraction rules of Sections 10.1 to 10.11.

Examples:

```
we-e-elll
a-a-ah—ch-o-o-oh
shhhh :: :: :: ::
errrr
            pfft ::::
doodle-e-do
the-e-enk so-o-o-o so-o-o-o
            aaarrrggghh
br-r-r
hm :
cooooountry
            agagood :: :: :: :: ::
            looong
Illittle
```

Spelling

10.12.15 For a word which is spelled, follow print and follow the rules of Section 5, Grade 1 Mode, and Section 8, Capitalisation.

```
Take the dog for a w-a-l-k.
```

```
w-i-n-d-o-w

M-a-c-L-e-a-n

N O W!

U-N-I-T-E-D
```

Stammering

10.12.16 For a word which is stammered, follow print and the rules of Section 5, Grade 1 Mode, and the contraction rules of Sections 10.1 to 10.11.

Examples:

```
b...but
V-V-you
c-c-conceive
qu-quick 👯 👯 👯 👯
g-good ::::::::
m-m-mine
wh-where
      f-f-father
    de-ce-cease
th-the :::
s-s-s-super-st-stition
th-these
        g-ghost
        lea-leave
m-must
         w-what
c-can't
        w-was
b-b-below
```

Syllabified words

10.12.17 For a word shown in syllables, follow the basic contraction rules of Sections 10.1 to 10.11. In particular, do not use an alphabetic wordsign for a syllable of a word shown in syllables.

Examples:

```
for-ev-er-more

not-with-stand-ing

some-one
en-chant-ment
in-fea-si-ble
child-ish-ly
dis-in-ter-est
al-be-it
al-be-it
for-get-ting
out-side
be-low
```

10.13 Word division

Note: It is preferable that transcribers do not divide words at the end of a braille line. Be aware that the braille authorities of some countries have specific guidelines on word division and such guidelines if available should be followed. However, when words do need to be divided at the end of a line, observe the following contraction rules.

Note: The examples in this section first give the appearance of the word in print (that is, undivided) followed by the appearance of the word in braille (that is, divided between braille lines). The two spaces following the hyphen represent the space at the end of the braille line.

10.13.1 Divide a word between syllables even if it means that a strong contraction or a groupsign is not used.

```
Examples:
```

```
anteroom

bandanna

Catherine

"Freedom!"

history

profound.)
```

Hyphenated words

10.13.2 When a hyphenated word is divided at the existing hyphen, retain the normal braille form of the word. However, if this would result in a sequence consisting only of lower signs, do not use the lower wordsign.

Examples:

```
about-face

air-conditioned

Aix-en-Provence

Al-Azar

channel-less

CHILD-LIKE

ebb-tide

father-in-law

first-begotten

for the teach-in.

go-between

had-enough mood

his-and-hers
```

```
(in-depth)
out-of-the-way
part-time
self-control
teach-in.)
word-for-word
would-be
But:
teach-in.
```

Alphabetic wordsigns and strong wordsigns

10.13.3 Do not use the alphabetic wordsign or strong wordsign as part of a word divided between braille lines even when the word it represents appears to be standing alone.

Examples:

```
childlike everything everything outcome standstill whichever
```

ing

10.13.4 Do not use the strong groupsign for "ing" when these letters fall at the beginning of the braille line in a word divided between braille lines.

Examples:

```
meningitis in the second of th
```

Lower sign rule

10.13.5 In a word divided between braille lines, use any number of lower groupsigns and lower punctuation signs following one another provided the sequence includes a sign with upper dots. For purposes of this rule, when quotation marks are present, they are considered to have only lower dots. If there is not a sign with upper dots in the sequence, do not use the final lower groupsign.

Examples:

Dash

10.13.6 Words joined by a dash may be divided at the end of a braille line either before or after the dash.

10.13.7 Do not use the lower wordsign for "be", "were", "his" or "was" before or after a dash, even when separated from the dash by the end of the braille line.

Example:

10.13.8 Retain the braille form of the lower wordsign for "enough" or "in" in conjunction with the dash even when divided from the dash by the end of the braille line. However, it is also necessary to follow the lower sign rule.

Examples:

```
Enough—in my case (enough—in my case) (enough—
```

be, con, dis

10.13.9 Do not use the lower groupsign for "be", "con" or "dis" when the letters it represents precede the hyphen or fall at the beginning of the braille line in a word divided between braille lines.

Examples:

```
indistinct (redistribute in the coming in the company in the coming in the company in the c
```

ea, bb, cc, ff, gg

10.13.10 Do not use the lower groupsign for "ea", "bb", "cc", "ff", or "gg" when the letters it represents precede the hyphen or fall at the beginning of the braille line in a word divided between braille lines.

Examples:

Final-letter groupsigns

10.13.11 Do not use a final-letter groupsign at the beginning of the braille line in a word divided between braille lines.

Examples:

Shortforms

10.13.12 Do not divide a shortform between braille lines. For a word which includes letters which may be represented by a shortform, retain its

usual braille form as to the use of the shortform when dividing the word between braille lines.

Examples:

```
aboveground in the state of the
befriending."
blinded?)
```

Section 11: Technical Material

11: Technical Material

11.1 Introduction

This section presents the underlying rules governing the transcription of Technical Material. Some of the more common symbols are defined and simple examples of their use are included.

More detailed examples, lists of symbols and guidance covering a wider range and complexity of technical material are provided in the publication *Unified English Braille, Guidelines for Technical Material*.

Refer to: Guidelines for Technical Material when dealing with works of a technical nature, such as educational material in the areas of Mathematics, Science and Computer Studies.

11.2 Signs of operation and comparison

Some common operation signs

:::: + plus

minus (when distinguished from hyphen)

times (multiplication cross)

divided by (horizontal line between dots)

Some common comparison signs

equals

::• < less than, or opening angle bracket

greater than, or closing angle bracket

Refer to: Guidelines for Technical Material, Part 3, Signs of Operation, Comparison and Omission, for a full list of operation and comparison signs.

Spacing of operation and comparison signs in non-technical material

11.2.1 When isolated calculations appear in a literary text, the print spacing should be followed.

Spacing of operation and comparison signs in technical material

11.2.2 Follow print spacing in any technical notation where spacing is significant. If unsure of its significance, follow the print spacing as long as the presence or absence of spaces is clear. In cases where print spacing is indeterminate or known not to be significant, spacing should be used to reflect the structure of the expression or equation.

Note: In most common mathematics including algebra, operation signs should be unspaced on both sides but comparison signs should be spaced.

Examples:

[from a school mathematics textbook:]

```
3.9 \times 4.1 < 16
```

[a valid statement in the C programming language:]

```
VarsEqual=(x==y);
```

Refer to: Guidelines for Technical Material, Part 1, General Principles, for more advice on the spacing of technical material.

11.3 Fractions

- simple numeric fraction line
- general fraction line
- general fraction open indicator
- general fraction close indicator

Simple numeric fractions

11.3.1 A simple numeric fraction is one whose numerator and denominator contain only digits, decimal points, commas or separator spaces and whose fraction line in print is drawn between the two vertically (or nearly vertically) arranged numbers. In such a case a numeric fraction line symbol is used between the numerator and denominator and continues the numeric mode.

```
\frac{5}{8} of the class are boys.
```

```
Calculate \frac{5.7}{2,000}
```

Mixed numbers

11.3.2 Mixed numbers should be treated as two unspaced numeric items.

Examples:

Fractions written in linear form in print

11.3.3 The numeric fraction line is not used when the print is expressed linearly using an ordinary forward slash symbol. In such a case the same symbol is used as in print.

Example:

3/8 of the class are girls.

General fraction indicators

11.3.4 If the numerator or denominator is not entirely numeric as defined in 11.3.1, then the general fraction indicators should be used. Write the opening indicator, then the numerator expression, then the general fraction line symbol, then the denominator expression and finally the closing indicator.

Note: If an opening or closing fraction indicator appears within a grade 2 passage, it may need a grade 1 indicator.

Note: Both numerator and denominator may be any kind of expression whatever, including fractions of either simple numeric or general type.

$$speed = \frac{distance}{time}$$

$$\vdots$$

$$\vdots$$

$$\vdots$$

Refer to: Guidelines for Technical Material, Parts 6.4 and 6.5, for more examples of general fractions.

11.4 Superscripts and subscripts

- level change down (subscript)
- level change up (superscript, exponent or power)
- braille grouping open
- braille grouping close

Definition of an item

- 11.4.1 The scope of a level change indicator, that is, the symbol(s) affected by it, is the next "item". An item is defined as any of the following groupings:
 - An entire number, i.e. the initiating numeric symbol and all succeeding symbols within the numeric mode thus established (which would include decimal points, commas and simple numeric fraction lines).
 - An entire general fraction, enclosed in fraction indicators (Section 11.3).
 - An entire radical expression, enclosed in radical indicators (Section 11.5).
 - An arrow (Section 11.6).
 - An arbitrary shape (Section 11.7).
 - Any expression enclosed in matching pairs of round parentheses, square brackets or curly braces.
 - Any expression enclosed in the braille grouping indicators.

If none of the foregoing apply, the item is the next individual symbol.

Superscripts and subscripts within literary text

11.4.2 If a superscript or subscript appears within a grade 2 passage, it may need a grade 1 indicator.

The points P_1 and P_2

```
[The points P sub 1 and P sub 2]
```

Smith wrote a paper⁵⁶ which says . . .

```
[Super 56 indicating a footnote]
```

The formula for water is H₂O

```
[The formula for water is H sub 2 endsub O]
```

Algebraic expressions involving superscripts

11.4.3 When transcribing algebraic expressions involving superscripts, braille grouping symbols may be required.

Refer to: 11.4.1 for the definition of an item.

Examples:

Refer to: Guidelines for Technical Material, Part 7, Superscripts and Subscripts, (7.4, 7.5, 7.7, 7.8 and 7.9), for the treatment of superscripts or subscripts which are on multiple levels, left displaced, or directly above or below the item. Also for bars, dots, tildes etc that appear directly over or under items.

11.5 Square roots and other radicals

- open radical (root)
- :: close radical (root)

Square roots

11.5.1 The expression inside the square root sign in print (the radicand) should be preceded by the open radical sign and followed by the close radical sign. The radicand itself may be any expression whatsoever, and may therefore contain radicals as well as other mathematical structures.

Note: If an open or close radical sign appears within a grade 2 passage, it may need a grade 1 indicator.

Examples:

Cube roots etc

11.5.2 In print the radical index, if present, is printed above and to the left of the radical sign. This index is placed in braille as a superscript expression immediately following the opening radical symbol.

Example:

```
\sqrt[3]{8} = 2 : [the cube root of 8 = 2]
```

11.6 Arrows

Simple arrows

- arrow indicator

 simple right pointing arrow [east]

 simple left pointing arrow [west]

 simple up pointing arrow [north]

 simple down pointing arrow [south]
- 11.6.1 A simple arrow has a standard barbed tip at one end (like a v on its side, pointing away from the shaft). The shaft is straight and its length and thickness are not significant. These arrows are represented by an opening arrow indicator and the appropriate closing arrow indicator.

Arrows with non-standard shafts

•• single line shaft

double line shaft

• dotted line shaft

11.6.2 All shaft symbols can be elongated by repetition, with one cell for a short shaft, two for a medium shaft and three for a long shaft. The shaft symbols are placed between the opening and closing arrow indicators.

Example:

⇒ :::::::::::: [double shafted medium length right pointing arrow]

Arrows with non-standard tips

- regular barb, full, in line of direction
- regular barb, full, counter to line of direction
- 11.6.3 If an arrow has unusual tips, decide which is the head before you choose the direction of your closing indicator.

Note: The tip(s) and shaft segment(s) are transcribed between the opening and closing indicators. These items are expressed in logical order, that is starting with the arrow tail and progressing towards the head, even if that runs counter to the physical order (as in the case of a left pointing arrow).

Example:

Less common arrows

11.6.4 Less common arrows can also be indicated in braille.

Refer to: Guidelines for Technical Material, Part 13, Arrows, for the treatment of:

- arrows with shafts which are diagonal, curved or dotted;
- arrows with tips which are half barbed, curved or straight; and
- equilibrium arrows that occur in Chemistry.

11.7 Shape symbols

```
shape indicator
```

transcriber-defined shape indicator

shape terminator

regular (equilateral) triangle

square

:: :: circle

Refer to: Guidelines for Technical Material, Part 14, Shape Symbols and Composite Symbols, for more examples.

Use of the shape termination indicator

11.7.1 If a shape is followed by a space then no termination symbol is needed. If however the shape symbol is followed by punctuation, or unspaced from a following symbol, then the shape terminator must be used.

Examples:

Transcriber-defined shapes

11.7.2 The description within transcriber-defined shapes should be a short series of initials or a single grade 1 word. They should not be used if the print symbol is already covered elsewhere in the code. The definitions of all shape symbols should be available to the reader in either a transcriber's note or on a special symbols page.

A smiling face © used as an icon throughout a book could be defined as :: :: :: ::

11: Technical Material

Physical enclosure indicator ::

11.7.3 The physical enclosure indicator signals a combining of the item just prior (the outer symbol) with the item immediately following it (the inner symbol), where "item" is as defined in Section 11.4.1.

Example:

```
⊕ ∷∷∷∷ [circle enclosing a plus sign]
```

Refer to: Guidelines for Technical Material, Part 14.3, of Shape and Composite Symbols, for superposition, horizontal juxtaposition and vertical juxtaposition of print symbols.

11.8 Matrices and vectors

```
big (multi-line) opening round parenthesis
```

big (multi-line) closing round parenthesis

Placement of multi-line grouping symbols

11.8.1 When a print grouping symbol stretches across several lines of print, use the appropriate enlarged grouping symbol in braille. Repeat the grouping symbols directly under each other on each line. Use blank lines before and after such arrangements for clarity.

Example:

$$I = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$

Refer to: Guidelines for Technical Material, Parts 15.1 to 15.7 of Matrices and Vectors, for more enlarged grouping symbols and examples.

11.9 Chemistry

Use of capital indicators and terminators

11.9.1 The general UEB principles on the choice of single letter, word or passage mode apply; in particular, a capital terminator should not be used within a two-letter chemical element symbol. Using single capital indicators for chemical formulae provides a uniform appearance to the braille; nevertheless, there may be a clear advantage in using capital passage mode in some cases. Letters representing chemical elements should never be contracted.

Examples:

Refer to: Guidelines for Technical Material, Parts 16.1 to 16.7, of Chemistry, for more examples.

11.10 Computer notation

Definition of computer notation

11.10.1 Computer notation is any text written in a formal syntax that is designed to allow computers to utilize the text directly for technical purposes related to the computer itself. Examples include computer programs written in procedural languages such as Java, C++, COBOL, and various "assembly" languages, nonprocedural scripting and markup languages such as XHTML, and data files prepared to meet the input requirements of specific programs.

Note:

- "Displayed" computer notation is presented in one or more lines separate from the surrounding literary text;
- "inline" computer notation is presented within ordinary literary text, for example, an email address mentioned within a sentence.

Grade of braille in computer notation

11.10.2 A displayed computer program or program fragment should normally be transcribed in grade 1 braille; nearby excerpts from a program

that is displayed in grade 1 should preferably also be in grade 1, for consistency. Other expressions, such as email addresses, web sites, URLs, filenames, and computer expressions not displayed on separate lines, should normally be transcribed in grade 2 braille.

Refer to: Section 2, Terminology and General Rules, for the "Standing Alone" rule; and also to Section 10, Contractions, for examples of email and web addresses.

Refer to: Guidelines for Technical Material, Part 17, Computer Notation, for an example of a program fragment.

Section 12: Early Forms of English

		-
· • • • • • • • • • • • • • • • • • • •	3	lowercase yogh
· · · • • • • · · · · · · · · · · · · ·	3	capital yogh
· • · • · • · • · • · • · • · • · • · •	þ	lowercase thorn
· · · • • • · • · · · · · · · · · · · ·	Þ	capital thorn
· • • • · • · • · • · • · • · • · • · •	ð	lowercase eth
· · · • • • · · · · · · · · · · · · · ·	Ð	capital eth
	р	lowercase wynn (wen)
· · · • • • • • • • • • • • • • • • • •	Р	capital wynn (wen)
• · · • · · • · · · · · · · · · · · · ·	æ	ligature ae (ash)
	Æ	capital ligature AE (ash)
• · • • · • • · • • · • · • · • · • · •	œ	ligature oe
	Œ	capital ligature OE
• • • • • • • • • • • • • • • • • • • •		macron above following letter

12.1 Follow the provisions of Sections 4.2 and 4.3, Letters and Their Modifiers for the treatment of ligatured letters and the macron.

Example:

Hwær wære ðū?

12.2 Use uncontracted braille for Old English, that is, English written before about 1100.

Example:

Bēoð gē stille.

12.3 In Middle English (c. 1100 to c. 1450) the use of contractions is optional. When contractions are used, have regard for spelling variations.

[Luke 2:10 from Wyclif Bible (c. 1380) with uncontracted braille:] & be aungil seide to hem, nyle 3ee dreeden, lo sobli I euangelise to 3ou a gret io3e bat shall be to alle puple.

```
[examples using contracted braille:]
al (all)
bothe (both)
citye (city)
could (cold)
daynty (dainty)
dolefull (doleful)
fful (full)
forthe (forth)
gentlenes (gentleness)
hadde :::::::
heathenesse (heathendom)
loue (love)
monethe (month)
onely (only)
ouer (over)
sones (sons)
soone
swolewith (swallows)
```

12.4 Use contracted braille for Early Modern English (c. 1450 to c. 1650) having regard for spelling variations.

Example:

[Luke 2:10 in the original spelling of the King James Bible (1611):] And the Angel said vnto them, Feare not: For behold, I bring you good tidings of great ioy, which shall be to all people.

Section 13: Foreign Language

Foreign code signs used in this section (non-UEB symbols)

gii code .	signs used in this section (non-orb symbols)	
3	Greek epsilon	
μ	Greek mu	
OU	Greek omikron ypsilon	
Ç	French c-cedilla	
é	French e-acute	
à	French a-grave	
á	Spanish a-acute	
è	French e-grave	
é	Spanish e-acute	
ú	Spanish u-acute	
î	French i-circumflex	
ô	French o-circumflex	
ų	Igbo u-dot-under	
OI	Greek omikron iota	
Ò	Igbo o-dot-under	
	French opening italic passage	
خ	Spanish question mark [opening question mark is inverted in print]	
()	French parenthesis (round bracket), opening and closing	
í	Spanish i-acute	
ó	Spanish o-acute	
	French closing italic passage	
	French capital sign	
	μ ου çéàááèéúîôụοι ο ¿ ()	

13.1 Determining what is foreign

13.1.1 A foreign language is any natural or artificial language in use now or in the past other than English. It may be written in Roman or non-Roman script. Any form of English transliterated in non-Roman script is also to be treated as foreign.

13.1.2 In determining whether a word or phrase is foreign or anglicised, consistency within a book is much more important than consistency between books. The publisher's (or where possible the author's) intention, if ascertainable, should be regarded as paramount. Attention should be paid to typography, since italics or (less frequently) bold or quotation marks are often used to distinguish words regarded as foreign from those regarded as anglicised.

Refer to: 13.2, for the treatment of contractions in words, phrases or passages, regarded as foreign.

Example:

Her pirouette was lovely but her fouetté en tournant was spectacular.

13.1.3 In doubtful cases the default position is to consider the word or phrase as foreign. Therefore titles (for example) in another language should be regarded as foreign, even though English and foreign titles are not differentiated.

Note: If a standard dictionary is consulted to settle a question which cannot be resolved by reference to the book itself, care should be taken to ensure that the dictionary is actually purporting to answer the question with which the transcriber is confronted. It should also be remembered that even good dictionaries do not agree among themselves as to what words are to be regarded as foreign.

Note: If using a dictionary, ensure that it is less than ten years old. Words or expressions that appear as main entries in the body of the dictionary are considered anglicised unless they are identified as foreign. Consult the usage guide for the dictionary to determine how foreign terms are identified, e.g. by a distinctive typeface or by a special print marker.

Examples:

The newspapers with the largest circulation are *Yomiuri Shimbun* and *Asahi Shimbun* from Japan followed by *The Times of India.*

In 1916, the British *Queen Mary* was sunk by the German *Derfflinger* during the Battle of Jutland.

[entries in a bibliography:]

- 1. Conlogue, Ray. *Impossible Nation: The Longing for Homeland in Canada and Quebec*. Toronto: Mercury Press, 2002.
- 2. Le Roy Ladurie, Emmanuel. "Quand Paris était capitale du monde." *Le Nouvel Observateur*, August 2001.
- 3. Ménard, Marc. *Élements pour une économie des industries culturelles*. Montreal: SODEC, 2004.
- 4. Weber, George. "The World's Ten Most Influential Languages." *Language Today 2*, December 1997.

13.2 Using UEB contractions

13.2.1 Except as provided for in the note below, do not use contractions in words, phrases or passages which are regarded as foreign, including any English words within the expression.

Note: It is permissible to disregard this rule provided that there are appropriate braille authority policies and guidelines in place which transcribers in your country are expected to follow to ensure that ambiguity is avoided.

Examples:

The *foih-chai*, the trains, tugged freight cars that banged together like thunder.

Genji's suitor played the shamisen.

Therese is very *chic*.

Schwiegervater is the German word for "father-in-law."

The word "demonstrate" comes from the Latin **demonstrare**.

"Un momentito, por favor," said Carlos.

In Nigeria, I prefer to travel by Ife Sine Chi long distance buses.

The announcement started: Lord Byron era un poeta muy conocido.

"Prenons courage, Marguerite," Jeanne said, her arm linked firmly in mine.

We went out for a lekker braai of pap en wors.

[Note the contractions in this example, and refer to the note attached to 13.2.1. above.]

- 13.2.2 Do not use grade 1 indicators for foreign material in uncontracted braille.
- 13.2.3 Use UEB contractions in words, phrases, proper names and personal titles which are regarded as anglicised. However, do not use a contraction that would unduly distort the pronunciation or structure of a word.

Examples:

The expression memento mori is sometimes used with some of the sense of carpe diem.

While he was in Sarajevo, the beautiful Ferhadija mosque had been dynamited.

Sr. y Sra. Juarez were impressed with the locally-made pancetta served at the pensione in San Marino, Italy.

Murasaki Shikubu wrote The Tale of Genji.

13.3 Guidelines for contracting anglicised words derived from specific languages

- 13.3.1 Greek: In the letter combination "sth", use the contractions "th" or "the" (representing the letter theta) rather than the contraction "st".
- 13.3.2 Scandinavian languages: Use the "ar" contraction in the letter combination "aar" (in which aa represents a with circle above)
- 13.3.3 Welsh: Do not use the contraction "ed" in the letter combination "edd" (dd represents a distinct letter). Similarly use "ff" contraction in the letter combination "off" rather than the contraction for "of".

13.4 Representing accented letters

- 13.4.1 There are two ways to represent accented letters in braille within a UEB context:
 - by means of UEB signs for modifiers (13.5), or
 - by means of the foreign code signs used in braille production in the country where the language is spoken (13.6).

Hybridisation of these two methods is to be avoided since UEB symbols and foreign code signs are different and may conflict.

13.5 Using UEB signs

- i inverted exclamation mark
- inverted question mark
- 13.5.1 Use UEB signs to represent accented letters, punctuation or Greek letters where it is judged likely that most readers will be unfamiliar with the foreign code signs, and where the nature of the material does not create a reasonable expectation that they should learn them. UEB signs should therefore be used:
 - for occasional foreign words and phrases occurring in English context;
 - for longer foreign passages such as conversation occurring in English novels or in other English works regarded as primarily for leisure reading.

Refer to: Section 4, Letters and their modifiers, for the complete list of UEB signs for accents and Greek letters.

Examples:

He walked past the great masses of the grandes écoles.

Sietske took out the parcel and handed it to the soldier. "Ein Geschenk für uns [A gift for us]," he laughed. Then he opened the tin box.

"*Ah, gute Butter* [butter, delicious]. *Danke, Fräulein* [Thank you, young lady]."

```
— iOué idea más buena!— exclaimed Pedro's mother.
```

For σ read "standard deviation."

Use Δv to denote difference or change in velocity.

- 13.5.2 When UEB signs are used, do not use foreign code contractions or other signs from the foreign language code such as punctuation or indicators.
- 13.5.3 When UEB signs are used, do not use code switch indicators.

13.6 Using foreign code signs

- 13.6.1 Use foreign code signs in the representation of foreign language material where there is substantial occurrence of the foreign language, as in:
 - grammars and other instructional materials,
 - English commentaries on foreign works for study,
 - bilingual texts (whether set out in parallel or consecutively) such as official forms, opera libretti and other translations, and
 - any situation where significant knowledge of the foreign language is presupposed or being taught.
- 13.6.2 In a foreign language braille code, it is possible to have six categories of sign:
 - 1. Signs representing the basic elements of the script (whether alphabet, syllabary, or other);
 - 2. Signs representing accents (including indicators of breathing, tone, stress or quantity);
 - 3. Punctuation signs and indicators;
 - 4. Ancillary signs (including any signs liable to occur in literary contexts, which may or may not be more prevalent in technical material, such as the ampersand, asterisk, bullet, at sign, dagger, and the signs representing basic mathematical operations);
 - 5. Technical signs, which are unlikely ever to appear in literary contexts;
 - 6. Contractions.

Refer to: The most recent edition of *World Braille Usage* which lists by country signs used in categories (1) to (3).

- 13.6.3 When foreign code signs are used, do not use UEB contractions.
- 13.6.4 When using foreign code signs for basic elements of the script and/or for accents, that is, categories (1) and (2) above, it is permissible though not required to use the foreign code signs for any of the other categories. Do not use a UEB sign that conflicts with an element in the foreign code. Also do not mix foreign code signs and the equivalent UEB signs for the same language in the same book.

Examples:

[from a textbook teaching Spanish:] To indicate profession or vocation:

Carlos Fuentes **es** escritor. *Carlos Fuentes is a writer.*

Yo **soy** músico. *I am a musician.* Tú **eres** doctora. *You are a doctor.*

```
[examples in a textbook teaching French:]
Il y a deux crèches en ville.
There are two day-care centers in the city.
Ils se sont mariés il y a deux ans.
They got married two years ago.
[from a textbook teaching Igbo:]
It was delicious.
           O toro uto.
[from a workbook for children learning French:]
Answer the following questions using «il y a ... (que), ça faît ... (que),
depuis» (sometimes there are several possibilities).
Il y a combien de temps que tu vas dans ce collège? (deux ans)
```

[from the grammar section of a Spanish-English dictionary:] Asking Ouestions:

¿está aquí tu hermano? ¿el agua está fría? tú le diste el dinero, ¿verdad?

is your brother here? is the water cold? you gave him the money, didn't you?

[from a bilingual, English and French, government document:] Make the certified cheque or money order (*for Licence Renewal Fee only*) payable to the Minister of Finance.

Libellez le chèque certifié ou le mandat (*concernant le droit de renouvellement du permis seulement*) à l'ordre du ministre des Finances.

- 13.6.5 List all foreign code signs used on a preliminary page.
- 13.6.6 Use foreign code contractions, i.e. category (6) above, only for a language written in Roman script which is also one of the official languages of the country from which the document originates or for which it is requested. However, in no case is the use of foreign code contractions mandatory.

13.7 Code switch indicators

13.7.1 Code switch indicators are used to enclose non-UEB material, in this case material using foreign code signs. Do not use UEB signs within code switch indicators.

Example:

[from a textbook teaching Greek:] The unemphatic forms, $\mu o u$, $\mu o u$, μe , are enclitic.

13.7.2 When the nature and extent of the enclosed material can be clearly deduced from formatting or other contextual considerations, as when parallel texts in English and another language are set out in tabular form or when the foreign language is identified by a change of typeface, then code switch indicators may be omitted.

Example:

[from the grammar section of a Spanish-English dictionary:]
No article is used after **qué** and **vaya** in exclamations:

iqué lástima!

what a shame

13.7.3 If the main body of text is in a foreign language with occasional words or passages of English interspersed, e.g. by way of commentary or explanation, it is recommended that the function of the code switch indicators should be reversed, so that they enclose the UEB material. Explain this reversal in a transcriber's note.

Example:

[French:]

Souvent précédé d'une conjonction de subordination telle que "quand", "dès que" (immediately), "aussitôt que".

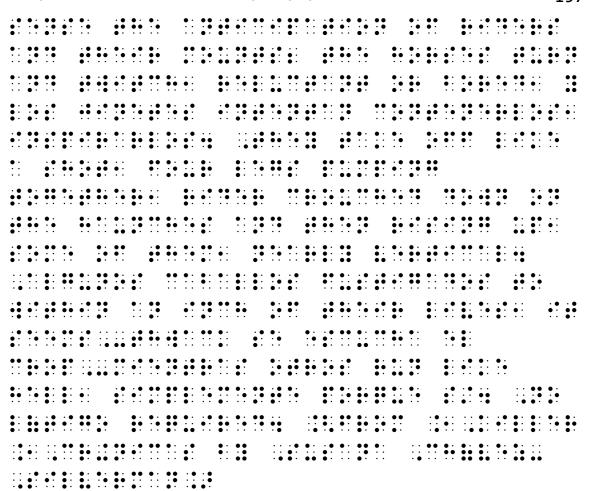
13.8 Mixed-language literature

13.8.1 For a literary work in which English and one or more other languages are interspersed freely with no typographical or other distinction, consider the braille codes of the languages involved and the issue of ambiguity in determining whether to use UEB contractions and how to represent accented letters. Do not mix UEB signs and foreign code signs for any particular print character or braille indicator.

Note: The following example is a mix of English and Spanish. In this example, foreign code signs are used for accented letters since it is expected that readers would be familiar with them. Uncontracted braille is used to avoid ambiguity. UEB signs are used for punctuation and indicators.

Example:

We begin to walk away, right next to the foam-flecked horses (they sweat right down to their hooves; rico el olor). Nos damos cuenta de que la perspectiva desde el comienzo de la carrera es, si cabe, even more thrilling. From here, we can sense the anticipation of riders and their mounts; the horses turn and twitch, reluctant or bored, y los jinetes intentan contenerlos, inspirarlos. They take off like a shot, four legs pumping together, rider crouched down on the haunches and then rising up, some of them, nearly vertical. Algunos caballos fustigados to within an inch of their lives, it seems—thwack se escucha el crop—mientras otros run like hell, simplemente porque sí. No látigo required. [from *Killer Crónicas* by Susana Chávez-Silverman]



Section 14: Code Switching

Code switching indicators

non-UEB word indicator

non-UEB word terminator

opening non-UEB passage indicator

closing non-UEB passage indicator

Note: The opening non-UEB passage indicator is actually two UEB symbols: if it followed by if

Code switching indicators for IPA Braille

: : : : : : : : : : : : : : : : : : : :	[opening IPA bracket; opening square bracket with switch from UEB to IPA
· • • • • · • · · • · · · · · · · · · ·]	closing IPA bracket; closing square bracket with switch from IPA to UEB
:• :• :•	1	opening IPA slash; opening solidus (forward slash) with switch from UEB to IPA
	1	closing IPA slash; closing solidus (forward slash) with switch from IPA to UEB
		general opening IPA indicator
:		general IPA terminator

Note: The closing IPA bracket, the closing IPA slash and the general IPA terminator are IPA indicators, not UEB indicators.

Code switching indicators for music braille

opening music indicator when following a space

music terminator when following a space

Note: The music terminator is a music braille indicator, not a UEB indicator.

Code switching indicators for Nemeth Code

opening Nemeth Code indicator followed by space

Nemeth Code terminator preceded by space

Note: The Nemeth Code terminator is a Nemeth Code indicator, not a UEB indicator.

Non-UEB symbols used in this section

•••	Υ	Greek letter gamma
• •	୍ର'	Greek rough breathing mark
• •	1	Greek letter iota
• •	λ	Greek letter lambda
• • • • • • • • • • • • • • • • • • • •	ن	Arabic letter noon
•••••	0	Greek letter omicron
••	П	Greek letter pi
••	ق	Arabic letter qaf
• ·	ំ	Arabic damma
••	é	French e-acute
• •	(Nemeth left parenthesis
• •	è	French e-grave
• •	é	Spanish e-acute
•	ط	Arabic letter tah
••)	Nemeth right parenthesis
• •	ê	French e-circumflex
• •	Э	IPA open o
• •	Ь	Music flat sign
• · : •	ſ	IPA esh
••	ë	French e-diaeresis
••	ŋ	IPA eng
• •	ð	IPA edh
• • • • • • • • • • • • • • • • • • • •	ñ	Spanish n-tilde
• •	OI	Greek omicron iota
• :	1	Nemeth numeral 1
• :	2	Nemeth numeral 2
•••	ំ	Arabic sukun
•••	¥	IPA length mark
••	3	Nemeth numeral 3
•••••	\rightarrow	British Chemistry right arrow
•••	4	British Chemistry subscript numeral 4
••	4	Nemeth numeral 4

 iou Englion E	, and	The bodd officining	_
•••	ə	IPA schwa	
• • •	٤?	Spanish question mark	
• • • •	٢	IPA fish-hook r	
•••	7	Nemeth numeral 7	
· · · · · · · · · · · · · · · · · · ·	0	Nemeth numeral 0	
: • • :	I	IPA small capital i	
: • : :	+	Nemeth plus	
: • : :	ó	Spanish o-acute	
· • · •	J	IPA turned r	
		Music four-four time signature	
· • · •	ä	German a-umlaut	
:: ••	_	Nemeth minus	
	v	IPA wedge above	
· • · •		Nemeth superscript indicator	
. • • .	1	IPA vertical stroke (superior)	
· • • • · · · · · · · · · · · · · · · ·		BANA Computer Braille Code continuation indicator	
· • • · · · · · · · · · · · · · · · · ·		BANA Computer Braille Code end Computer Braille Code	
	1	IPA vertical stroke (inferior)	
· • · • · • · · · · · · · · · · · · · ·		BANA Computer Braille Code caps lock indicator	-
· · · · •		British Chemistry two letter chemical element sign	
: • : •		Nemeth baseline indicator	
: • : • : •		French capital sign	
. • • .	=	Nemeth equals	
	θ	IPA theta	
· · • · · · · · · · · · · · · · · · · ·	ë	Afrikaans e-diaeresis	
• • • •	+	British Chemistry plus	
:: :•	,	Nemeth mathematical comma	

14.1 Purpose of code switching

14.1.1 The purpose of code switching is to indicate text which is transcribed in a braille code other than UEB. This may include:

- braille codes for languages other than English, such as Afrikaans, French, German, Spanish, Vietnamese
- IPA Braille: An Updated Tactile Representation of the International Phonetic Alphabet [see 14.4]
- New International Manual of Braille Music Notation [see 14.5]
- The Nemeth Braille Code for Mathematics and Science Notation [see 14.6]
- other non-UEB braille codes for subjects such as mathematics, chemistry, computer science (assuming the transcriber has a special reason for switching, which in general is not necessary in UEB)
- historical braille codes
- proposed braille codes

14.2 When to use code switching indicators

14.2.1 When a text is to be read in hardcopy braille, do not use code switching indicators when the nature and extent of the non-UEB text can be determined by the context or format.

Examples:

[Spanish in column format:]

```
pensión completa

¿puedo verlo?

baño compartido

private bath
```

[boldface used only for Spanish:]

No article is used after **qué** and **vaya** in exclamations.

14.2.2 In situations where code switching indicators are not used, ensure that the format or position of the non-UEB material is clear to the reader. Often the text itself will make it obvious, for example: when the introduction of a bilingual dictionary explains that the entry word in French is followed by its pronunciation in IPA; when the text has

two columns headed "Spanish" and "English"; or when the text states that the words in German are in bold. If the text does not explicitly draw attention to the non-UEB material, use a transcriber's note to explain the format or position of non-UEB braille codes.

- 14.2.3 Use code switching indicators for non-UEB material when writing braille that will be translated into print or where context and format cues are not obvious or meaningful, for example when a file will be read electronically.
- 14.2.4 Use code switching indicators when the non-UEB braille would be ambiguous and when the nature and extent of the non-UEB text cannot be determined by the context or format.

Example:

[quotes not limited to French:]

"Peut-être" has an alternate expression, "peut-être que".

14.2.5 When code switching indicators with identifiers are used, explain them either on a special symbols page or in a transcriber's note positioned before the affected material. [See 14.3.3.]

14.3 How to use code switching indicators

Refer to: 14.4 for code switching indicators for IPA Braille, to 14.5 for code switching indicators for music braille and to 14.6 for code switching indicators for Nemeth Code.

14.3.1 Place the non-UEB word indicator immediately preceding the symbols-sequence to which it applies. Its effect is terminated by the next space or by the next non-UEB word terminator.

Examples:

[Arabic:]

The word "cotton" is derived from the Arabic قُطْن (qutn).

```
[German:]
```

```
(For "alongside of" use "längs".)
```

14.3.2 Use the non-UEB passage indicators when there are three or more symbols-sequences in the non-UEB braille code. The effect of a non-UEB passage indicator continues until the closing non-UEB passage indicator.

Example:

[French:]

Note the use of é, è, ê, and ë.

14.3.3 When more than one non-UEB braille code is used in a particular text and it is not obvious which one is intended, modify the opening non-UEB passage indicator by augmenting it with an identifier. Before the dot 3, insert a short, mnemonic sequence of letters (no contractions) which is unique within the text. The transcriber determines the abbreviations used. Refer to ISO Standard 639-3 (on the website of SIL International, www.sil.org/ISO639-3/codes.asp) for a list of two-and three-letter designations for languages.

Examples of commonly-used languages:

```
Afrikaans

French

German

Greek (International)

Greek (Modern)

Indonesian

Italian

Japanese

Northern Sotho (Pedi, Sepedi)
```

- 14.3.4 Identifiers are not used with the non-UEB *word* indicator. If an identifier is required, use the opening and closing non-UEB *passage* indicators, even if it is only for one symbols-sequence.
- 14.3.5 When more than one non-UEB braille code is used in a text, use a non-UEB indicator without an identifier only when its meaning is obvious or when it refers to the same code as the next previous non-UEB passage within the paragraph.

Example:

[Greek with other non-UEB codes used elsewhere:]

Pericles praised government by the many (οἱ πολλοί) rather than by the privileged few (οἱ ὀλίγοι).

14.3.6 Close any non-UEB passage before opening another non-UEB passage. In other words, return to UEB first even if another non-UEB passage will start immediately.

Example:

[English, Afrikaans, German:]

The speed limit on all highways is 120 kilometres per hour.

Die Spoedgrens op alle snelweë is 120 kilometers per uur.

Die Geschwindigkeitsbegrenzung auf allen Autobahnen beträgt 120 Kilometer pro Stunde.

14.3.7 When the non-UEB text is displayed on one or more lines separate from the UEB text, the opening and closing non-UEB passage indicators may each be placed on a line by itself.

Example:

[British Chemistry Code. This example assumes the transcriber has a special reason for switching to this code for chemical notation, which in general is not necessary in UEB.]

- 14.3.8 Except in the previous instance, place non-UEB indicators at the exact point of change from UEB to non-UEB and back, unspaced from the symbols-sequence(s) which they precede or enclose. That is, do not insert spaces which are not already present in the text.
- 14.3.9 When a non-UEB code provides a symbol for switching out of that code, use that symbol in preference to the non-UEB word terminator or the closing non-UEB passage indicator.

Example:

[BANA Computer Braille Code. This example assumes the transcriber has a special reason for switching to this code for computer notation, which in general is not necessary in UEB.]

The macro command will change all occurrences of ROM to RAM, resulting in: WHEN IN RAME DO AS THE RAMANS DO,...

14.3.10 In the rare instance where the closing non-UEB passage indicator could realistically be misread as a symbol within the non-UEB code, instead use an opening non-UEB passage indicator augmented with the identifier "en" (for English) to indicate that UEB is resuming. If even this would be misread, the transcriber may devise a safe indicator to resume UEB.

14.4 IPA Braille within UEB text

Refer to: 4.4 for the eng and schwa when not used in phonetic or phonemic material.

- 14.4.1 Transcribe phonetic and phonemic material according to the provisions of *IPA Braille: An Updated Tactile Representation of the International Phonetic Alphabet.* The following sections provide for switching between UEB and IPA Braille.
- 14.4.2 Generally phonetic material within a text is identified in print by being enclosed in square brackets. Use the opening IPA bracket and closing IPA bracket. The effect of the opening IPA bracket is terminated only by the closing IPA bracket and not by a space.

Example:

Low vowels became mid vowels [aː] to [eː] as in [naːmə] to [neːm] name.

14.4.3 Phonemic material within a text is normally enclosed in solidi (forward slashes) in print. Use the opening IPA slash and the closing IPA slash.

Example:

Pronounce /I/ and /r/ as described above.

14.4.4 When IPA Braille and one other non-UEB braille code are used in a text, then non-UEB indicators can be used without identifiers for the other non-UEB braille code.

Example:

[IPA and French:]

Practice the sound [e] as in thé [te] and mélodie [melo'di].

14.4.5 When print does not use square brackets or solidi (forward slashes) to identify IPA material, and when the nature and extent of the material cannot be determined by context or format, then use the general opening IPA indicator and the general IPA terminator to enclose the IPA material.

Example:

Find the symbols \check{c} , ϑ , \int in the chart.

14.4.6 To temporarily switch from IPA Braille to UEB, use the general IPA terminator and return to IPA Braille with the general opening IPA indicator.

Example:

[nıniq'azb (garbled section) dıs'pjurıŋ]

14.5 Music braille within UEB text

Refer to: 3.18 for the natural, flat or sharp when used within UEB text and not within musical notation.

14.5.1 Transcribe music according to the provisions of *New International Manual of Braille Music Notation*. Follow its provisions to determine when indicators are needed to switch between UEB and music braille.

14.5.2 To switch from UEB to music braille when an indicator is necessary, leave a space and place the opening music indicator immediately before the musical notation.

Example:

The key signature is



14.5.3 Follow the provisions of *New International Manual of Braille Music Notation* for returning to UEB from music braille.

Example:

44

is the time signature.

14.6 Nemeth Code within UEB text

- 14.6.1 When technical material is transcribed according to the provisions of *The Nemeth Braille Code for Mathematics and Science Notation* within UEB text, the following sections provide for switching between UEB and Nemeth Code.
- 14.6.2 Place the opening Nemeth Code indicator followed by space before the sequence to which it applies. Its effect is terminated by the Nemeth Code terminator preceded by space.

Note: The spaces required with the indicator and terminator do not represent spaces in print.

Examples:

The result will be in the form (ax + by)(cx + dy), where ac = 12, bd = -10, and ad + bc = 7.

He said, "4x+3y is the numerator."

14.6.3 When the Nemeth Code text is displayed on one or more lines separate from the UEB text, the opening Nemeth Code indicator and the Nemeth Code terminator may each be placed on a line by itself.

Example:

Solution. Again we group the first two terms and the last two terms.

Section 15: Scansion, Stress and Tone

15.1 Scansion, Line Marking

line indicator
vertical line
double vertical line
solidus (forward slash)
double solidus

15.1.1 Follow print for the foot sign and the caesura to mark the pauses in speech, as in scanning poetry.

Examples:

To BE / or NOT to be, // THAT / is the QUESTion.

To err is human; | to forgive, divine.

15.1.2 When the line by line format of print (as in a poem) is changed to a linear format in braille, use the line indicator to mark the breaks between lines. The line indicator is unspaced from the preceding line and is followed by space before the following line.

Examples:

Rose kissed me to-day,—

Will she kiss me to-morrow?

—Austin Dobson

A mad kingfisher

rocketing about in the

red fog at sunrise

—Malcolm Lowry

15.2 Stress

- primary stress sign
- secondary stress sign
- 15.2.1 Follow print when capitals, letter modifiers, change of typeface and/or symbols written on the line above are used to indicate stress either in the syllables of a word or in the words in a phrase, sentence or poem.

Examples:

or/gan/i/ZA/tion

hót bréath on my ánkles,

—Ezra Pound

Ōvĕr thĕ / sēa, pāst / Crēte, // ŏn thĕ / Sȳriӑn / shōre ...

—Charles Kingsley

còunterintélligence

commercial [kə **mûr** shəl]

```
x / x / x / x / x /
```

But soft! What light through yonder window breaks?

Diagram of poetic metre:

15.2.2 When print uses marks before or after a syllable to indicate it is stressed, use the primary and secondary stress signs and follow print placement. Describe what print sign is used on the symbols page or in a transcriber's note.

Refer to: Section 3.11, General Symbols and Indicators, for the prime sign used for feet and minutes; and to *Guidelines for Technical Material*, Part 11 for the prime sign used in technical material.

Examples:

ap' ri hen' shən (apprehension)

[The first stress mark is a prime (or accent) and the second is a bold prime.]

```
kombi<sup>l</sup>neshn (combination)
```

[The first stress mark is a low vertical line and the second is a high vertical line.]

met'ə môr"fə sis (met a mor pho sis)

[The first stress mark is a prime and the second is a double prime.]

'This station | is 'Oval.

[The stress marks are high vertical marks.]

15.3 Tone

```
high tone
        e.g. 1
e.g. ⊢ mid tone
e.g. ↓
               low tone
e.g. / high rising
e.g. ,
               low rising
e.g. `
               high falling
e.g. \ low falling
        e.g. \( \square\) global fall
e.g. ↑ rise-fall
: : : : : :
        e.g. ♥ fall-rise
e.g. ↓ down step
```

e.g. ↑

up step

- 15.3.1 Follow print when capitals and change of typeface are used to indicate tonal patterns of speech, as in texts for learners of English as a second language.
- 15.3.2 For other modes of indicating tone, including arrows and position, use the tone symbols in this section.

Examples:

Lhote was the fleader.

There was a \sandstorm, \sigma first of all.

[Change of tone is indicated with an arrow before a word.]

[Change of tone is indicated by a change of level and also with arrows. The bullet before a word in braille represents a bullet under the word in print.]

'Alan's not <u>here</u>.

He's gone 'home?

[The stress marks are high vertical marks. The first tone mark is a low left-leaning mark and the second is a high right-leaning mark.]

15.4 Phonetic scansion, stress and tone

15.4.1 When scansion, stress and tone are shown with the International Phonetic Alphabet, use the most recent edition of *IPA Braille: An Updated Tactile Representation of the International Phonetic Alphabet.*

Section 16: Line Mode, Guide Dots

16.1 When to use line mode

- 16.1.1 Use line mode when it is advantageous to draw "lines" using standard braille cells. Line mode enables regular text and diagrammatic lines to coexist without ambiguity, even within the same diagram.
 - *Refer to:* Section 7, Punctuation, for the hyphen, dash, long dash and low line; *Guidelines for Technical Material*, Part 4, for the lines in spatial calculations and other technical diagrams; and Part 16.7, for the lines and bonds in structural formulae used in chemistry.
- 16.1.2 Use line mode for features such as lines separating column headings from items in the column and for horizontal lines before and after text set apart in boxes.
- 16.1.3 Do not use line mode when the attributes of the lines or their relationship with one another is important, such as in the study of geometry or the measurement of angles.
- 16.1.4 Do not use line mode when the diagram would be too complex to be read by touch.
- 16.1.5 Where the technology is available, it is often better to represent lines in diagrams with tactile graphics.

16.2 Horizontal line mode

- horizontal line mode indicator
- simple (solid single) horizontal line segment
- variant horizontal line segment (e.g. dotted or dashed)
- double horizontal line segment
- triple horizontal line segment
- corner with upward vertical
- corner with downward vertical
- crossing with left-leaning diagonal line
- : crossing with vertical line
- crossing with right-leaning diagonal line
- horizontal line mode terminator

- 16.2.1 Use the horizontal line mode indicator to open any horizontal line.
- 16.2.2 Within horizontal line mode, use the appropriate horizontal line segments, corners and/or crossings to represent the line.

Examples:
[a solid single horizontal line:]
[a dashed horizontal line:]
[a triple horizontal line:]
[a line with an upward pointing corner midway and a downward pointing corner at the right end:]
[a line with a vertical crossing:]
[a line with both a left-leaning crossing and a right-leaning crossing:]

[horizontal lines on a balance sheet:]

Income 865.73

Expenditure 700.41

Balance 165.32

[horizontal lines following column headings in a table:]

1 2 х у Χ mode 7 12 5 7 median 9 11 6 7 10 10 6 8 mean • • • • • • • • •

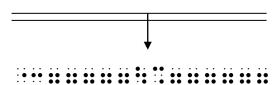
16.2.3 When an arrow is continuous with the line, use the arrow indicator to signal the beginning of the arrow. Use the symbols of arrow mode to represent the arrow. Upon completion of the arrow, horizontal line mode continues.

Refer to: Guidelines for Technical Material, Part 13, for rules on constructing arrows.

Examples:

[a line with a right-pointing arrow at the right end:]

[a double line with a downward-pointing arrow at the mid-point:]



16.2.4 To represent distinctive types of lines, use any valid single-cell UEB symbol in addition to those indicated in 16.2.2 and excluding the arrow indicator :, the horizontal line mode terminator : and space. In general, choose a symbol based on the physical shape of the line or feature (such as a junction) rather than the meaning of the symbol in other contexts.

Examples:

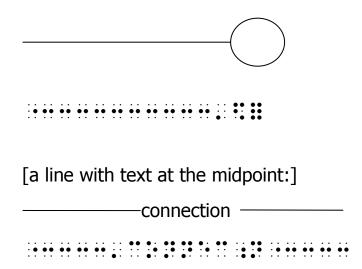
[a line with a small rectangle near the right end:]

[a line with different levels and with slanted and right-angle changes of level:]

16.2.5 Terminate horizontal line mode with a space or with the horizontal line mode terminator.

Examples:

[a line with a circle at the right end:]



16.2.6 When the variant horizontal line segment is used, describe the line it represents on the special symbols page or in a transcriber's note.

16.3 Diagonal and vertical lines

vertical single solid line segment

first variant vertical line segment (e.g. dotted or dashed)

second variant vertical line segment (e.g. double line)

left-leaning single solid diagonal line segment

: right-leaning single solid diagonal line segment

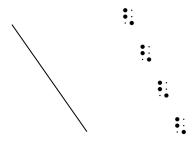
variant left-leaning diagonal line segment

variant right-leaning diagonal line segment

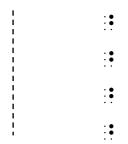
16.3.1 Use the diagonal and vertical line segments to represent diagonal and vertical lines. Group one or more of the symbols together when necessary providing that each group is surrounded by spaces.

Examples:

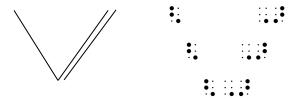
[a single solid left-leaning diagonal line:]



[a dotted vertical line:]



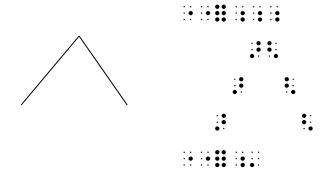
[a left-leaning diagonal line meeting a double right-leaning diagonal line in a v-shape:]



16.3.2 When a line drawing is in a text in contracted (grade 2) braille and when a string of two or more of the line-drawing characters : and : occur in the line drawing in any combination and surrounded by spaces, use grade 1 mode for the line drawing.

Example:

[a right-leaning diagonal line meeting a left-leaning diagonal line in an inverted v-shape:]



16.3.3 When a variant vertical or diagonal line segment is used, describe the line it represents on the special symbols page or in a transcriber's note.

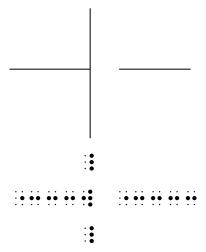
:

16.4 Combining lines

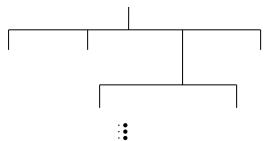
- 16.4.1 When lines and other elements of a diagram, such as an arrow, are touching or continuous, position the corresponding braille characters adjacent to one another, horizontally, vertically or diagonally.
- 16.4.2 Even when the left end of a horizontal line forms a corner or crossing with a vertical or diagonal line, open the horizontal line with the horizontal line mode indicator.

Examples:	
[a box, wider than tall:]	
· · · · · · · · · · · · · · · · · · ·	
[box diagram:]	
ice water	
[a vertical line with a horizontal line extending midpoint:]	rightward from its
:•••••••••••••••••••••••••••••••••••••	

[a vertical line crossing a horizontal line with a gap in the horizontal line to the right of the vertical line:]



[a diagram representing an organizational chart or a family tree:]



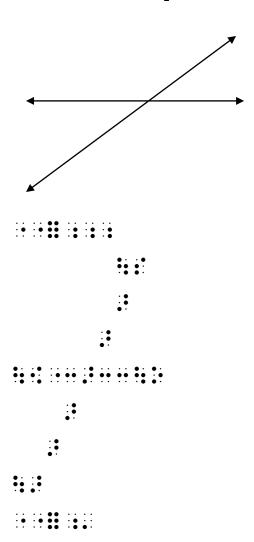
.....

:•

[noughts and crosses:]

X		0
x	x	0
	0	0

[a right-leaning line crossing a horizontal line with an arrow at both ends of both lines:]

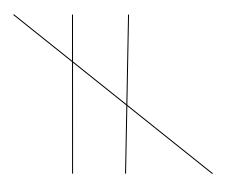


16.4.3 Use a space before and after each vertical line segment, first variant vertical line segment, second variant vertical line segment or combination of such segments. When a vertical line or one of the variant vertical lines crosses a diagonal line or is too close to a diagonal line, use either of the diagonal line segments or variant diagonal line segments.

Examples:

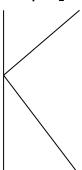
[two vertical lines crossed by a left-leaning diagonal line:]

Note: This diagram is almost too complex to use line mode.



```
.....
```

[a vertical line touched by two diagonal lines on the right to form a K-shape:]



16.5 Guide dots

guide dots (with space before and after)

16.5.1 Use a sequence of guide dots to enable the reader to track across a gap in the braille, as in a table of contents or columned material. Use no less than two guide dots and leave at least one blank cell before and after the sequence.

Examples:

[excerpt from a table of contents:]

 Slovenia
 10

 Croatia
 16

 Bosnia & Herzegovina
 29

[excerpt from a table of elements:]

ElementSymb.At. #lawrenciumLr103leadPb82lithiumLi3

Appendix 1: Shortforms List

This Appendix provides the Shortforms List and following it, the rules used to determine whether a word is added to the list. The Shortforms List is maintained by the ICEB Code Maintenance Committee.

Refer to: Section 10.9, Contractions, for the rules on the use of shortforms.

The list

Added "s" and apostrophe "s"

When an "s" or apostrophe "s" is added to any word on the list, use the shortform with the following three exceptions:

abouts

almosts :: :: :: :: :: ::

hims •••••••

about :::

aboutface aboutfaced aboutfacer aboutturned aboutfacing aboutturn eastabout gadabout hereabout knockabout layabout northabout roundabout roustabout rightabout runabout southabout stirabout walkabout thereabout turnabout

westabout whereabout

above :: :: ::

aboveboard aboveground abovementioned

hereinabove

according ::::

accordingly unaccording unaccordingly

across :::::

readacross

aftermeeting

after ∷∷:

afterbattle afterbirth afterbreakfast afterburn afterburned afterburner afterburning aftercare afterclap aftercoffee afterdamp afterdark afterdeck afterdinner afterflow aftergame afterguard afterglow afterhatch afterhatches afterhour afterlife afterlight afterlives afterlunch afterlunches aftermarket aftermath aftermatches aftermatch

aftermost afterpain afterparties afterparty afterpiece afterplay

aftermidday

aftermidnight

aftersale afterschool aftersensation

aftershave aftershock aftershow aftershower aftersupper aftertaste

aftertax aftertaxes aftertea aftertheatre afterthought aftertime

aftertreatment afterword afterwork afterworld hereafter hereinafter

morningafter thereafter thereinafter

whereafter whereinafter

afternoon :: ::::

afternoontea goodafternoon midafternoon

afterward :: :: ::

again 🗄 👯

hereagain hereinagain thereagain

thereinagain whereagain whereinagain

against :: :: ::

hereagainst thereagainst whereagainst

almost :: :: ::

already ∷∷∷

also ∷∷

although :::::

altogether :::::

always :::::

because :::

before :: ::

beforehand

behind :: ::

behindhand

below :::

belowdeck belowground belowmentioned

beneath :::

beneathdeck beneathground

beside :: :

between :::

betweendeck betweentime betweenwhile

beyond :::

blind :: : [See also Section 10.9.3 (c)]

blindfish blindfishes blindfold blindfolded blindfolder blindfolding blindman blindly blindmen blindness blindnesses blindside blindsider blindsided blindsiding blindstories blindstory blindsight blindworm colorblind colorblindness colorblindnesses colourblind colourblindness colourblindnesses deafblind deafblindness

deafblindnessespurblindpurblindlypurblindnesspurblindnessessnowblindsnowblindnesssnowblindnessesunblindfold

unblindfolded unblindfolding

braille :: :: [See also Section 10.9.3 (a)]

brailled brailler braillewriter
braillewriting brailley misbraille
misbrailled rebraille rebrailled
rebrailler unbrailled

children ::: [See also Section 10.9.3 (b)]

children'swear brainchildren fosterchildren

godchildren grandchildren greatgrandchildren

lovechildren schoolchildren stepchildren

conceive ::::::

conceived conceiver

could ::::

could've coulda couldest couldn't couldn't've couldst

deceive :::::

deceived deceiver archdeceiver undeceive undeceived undeceived

deceiving

undeceiving

declare :::::

declared declarer undeclare

undeclared

declaring :::::::::::

either :::

first :: [See also Section 10.9.3 (c)]

firstaid firstaider firstborn

firstclass firstclasses firstday

firstdayer firstfruit firstfruiting

firstgeneration firsthand firsthanded

firstling firstly firstness

firstnight firstnighter firstrate

firstrated firstrating firststring

feetfirst headfirst tailfirst

friend :: : [See also Section 10.9.3 (c)]

friendless friendlessness friendlessnesses

friendlier friendlies friendliest

friendliness friendly

friendship befriend boyfriend

defriend galfriend gentlemanfriend

gentlemenfriends girlfriend guyfriend ladyfriend manfriend menfriends schoolfriend unfriend penfriend unfriendliest unfriendlier unfriendliness unfriendlinesses unfriendly womanfriend womenfriends

good ::: [See also Section 10.9.3 (c)]

goodafternoon goodby goodbye goodbyeing goodbying goodday gooder goodevening goodest goodfellow goodfellowship goodhearted goodheartedly goodheartedness goodhumor goodhumored goodhumoredly goodhumoredness goodhumorednesses goodhumour goodhumoured goodhumourednesses goodhumouredly goodhumouredness goodie goodish goodlier goodliest goodliness goodlook goodlooker goodlooking goodly goodman goodmorning goodmen goodnature goodnatured goodnaturedly goodnaturedness goodnesses goodness goodnight goodsize goodsized goodtempered goodtemperedly goodtime goodwill goodun goodwife goodwilled goodwives goody goodyear feelgood scattergood supergood

great ::: [See also Section 10.9.3 (a)]

greataunt greatbatch greatcircle greatcoat greaten greatened greatener greatening greater

greatest greatgrandchildren greatgrandfather greatgrandmother greatgrandniece greatgrandparenthood greatgrandson greathearted greatheartednesses greatness greatsword

greatgrandaunt greatgranddad greatgrandfatherhood

greatgrandpa

greatheartedly

greatnesses

greatuncle

greatly

greatgrandchild greatgranddaughter greatgrandma

greatgrandmotherhood greatgrandnephew greatgrandparent

greatgranduncle greatheartedness greatnephew

greatniece

herself :::::

him :::

himbo himboes

himself ::::

immediate

immediately immediateness

its :::

itself :::

letter :: [See also Section 10.9.3 (c)]

> letterbomb letterbombed letterbombing letterbox letterboxer letterboxes letterbodies letterbody letterer letterform letterheading lettering lettermen letteropener letterpress letterpressed letterquality letterpressing

letterbomber letterboxed letterboxing lettered letterhead letterman letterperfect letterpresses

letterspace

unpaid

Rules of Unified English	Braille A	Appendix 1: Shortforms List	
lettersp	aced	letterspacing	lettertext
bloodle	tter	chainletter	hateletter
lovelett	er	newsletter	reletter
reletter	ed ·	relettering	unlettered
little :: [Se	e also Section	10.9.3 (c)]	
littled		littleneck	littleness
littlenes	sses	littler	littlest
belittle		belittled	belittlement
belittle	r		
much ::::			
muchly	r	muchness	forasmuch
inasmu	ch	insomuch	overmuch
must :::			
must've	9	musta	mustard
mustier	•	mustiest	mustily
mustine	ess	mustn't	mustn't've
musty			
myself ::::			
necessary ::	· •• • · ·		
unnece	ssary		
neither :::	•		
oneself ::::			
ourselves :::	• • •		
paid ∷ 🔡			
highlyp	aid	illpaid	lowlypaid
overpai	id	poorlypaid	postpaid
prepaid	l	repaid	underpaid

Second Edition 2013

wellpaid

perceive

perceived perceiver apperceive apperceived apperceiver misperceive misperceived misperceiver unperceive

unperceived

perceiving :: :: :: ::

apperceiving misperceiving unperceiving

perhaps :::::

perhapses

quick :: [See also Section 10.9.3 (c)]

quickdraw quicken quickened quickener quicker quickening quickest quickfire quickfiring quickfreeze quickfreezing quickfroze quickfrozen quickie quickish quickly quickishly quicklime quickness quicknesses quicksand quicksilvered quickset quicksilver quicksilvering quicksnap quickstep quickstepped quickstepper quickstepping quicktempered quicktime quickwitted quickwittedly quickwittedness quicky doublequick unquick superquick

receive :::::

received receiver receivership preceive preceiver unreceived

preceiving

rejoice ::::::

rejoiced rejoiceful rejoicefully rejoicefulness rejoicer unrejoice

unrejoiced unrejoicer unrejoiceful

unrejoicefully unrejoicefulness

rejoicing

rejoicingly unrejoicing unrejoicingly

said :::

saidest saidst aforesaid foresaid gainsaid missaid

should :::

should've shoulda shouldest shouldn't shouldn't've shouldst

such ::::

suchlike nonesuch nonsuch

somesuch

themselves :::::

thyself ::::

today :::

together :::::

togetherness

tomorrow :::

tonight :::

would :::

would've woulda wouldest wouldn't wouldn't've wouldst 'twould 'twould've 'twoulda

'twouldn't 'twouldn't've

your :::

yourself ::::

do-it-yourselfer

yourselves ::::::

Rules for list construction

Shortforms as words

1. The 75 shortforms of Unified English Braille are on the Shortforms List.

Shortforms as parts of longer words

- 2. When a shortform is part of a longer word, add the longer word to the Shortforms List provided that:
 - (a) the longer word retains an original meaning and the original spelling of the shortform; and
 - (b) use of the shortform is not prohibited by rules 3–5 which follow.

Examples:

```
ahimsa in the second declaration is in the second declaration in the s
```

3. Do not add a longer word to the Shortforms List if using the shortform in it would create another word.

Examples:

```
abouts :: :: :: [not] :: :: [abdominal muscles]
```

```
againe in it is in it in it is in it in it is in it in againe in it is in it in it in it in it is in almosts in it is in it in
```

after, blind and friend

4. When the shortform for "after", "blind" or "friend" is part of a longer word and is followed by a vowel or a "y", do not add the longer word to the Shortforms List.

Examples:

```
aftereffect is it is it
```

be and con shortforms

5. When any of the shortforms that begin with "be" or "con" are within a longer word, do not add the longer word to the Shortforms List unless the letters the shortform represents begin the longer word.

Examples:

```
hereinbefore inbetween inb
```

Appendix 2: Word List

This Appendix provides an alphabetic list of the example words used to show contraction use in Section 10: Contractions.

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abbé	• · · · • • • • · · · · · · · · · · · ·	10.6.5
abbreviate		10.11.5
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abouts	* • • • • • • • • • • • • • • • • • • •	10.9.2
aboveground	* • • • • • • • • • • • • • • • • • • •	10.9.2
accent	• · · · · • • · · · · · · · · · · · · ·	10.11.5
accept	• · · · • · • · • · · · · · · · · · · ·	10.6.5
account	• · · · • • • · · · · · · · · · · · · ·	10.6.5
acetone	• • • • • • • • • • • • • • • • • • •	10.7.6
acknowledge	• • • • • • • • • • • • • • • • • • •	10.7.1
acreage	•: •• •: •: •: •: •: •: •: •: •: •: •: •	10.6.5, 10.11.7
acrosses	· · · · · · · · · · · · · · · · · · ·	10.9.2
adhere	• • • • • • • • • • • • • • • • • • • •	10.7.5
adhered	• • • • • • • • • • • • • • • • • • •	10.7.5, 10.10.7
adherent	*: ** ** ** ** ** :: : * * * * * * * * *	10.10.7
adherer	• • • • • • • • • • • • • • • • • • •	10.10.7
advanced		10.10.2, 10.10.7
ædile	*: : : : : : : : : : : : : : : : : : :	10.4.1
aerial	•: •• •: •: •: •: •• •: •: •:	10.4.1, 10.11.9
aerobic	• • • • • • • • • • • • • • • • • • •	10.11.9
aerofoil	• · • • • · • • · · • • · · · • · · · ·	10.11.5
affect	•: :: •: •: •: •: •: •:	10.11.5
affirm	• · · · • • • • • · · · · · · · · · · ·	10.6.5
afford	*: *: *:	10.3.1, 10.6.5, 10.10.3
affrighted		10.7.1

aftercare	• • • • • • • • • • • • • • • • • • •	10.9.2
afterdinner	0 · 00 00 · · 00 00 · · · 00 00 · · · ·	10.9.2
aftereffect	• • • • • • • • • • • • • • • • • • •	10.9.2
afterimage	• • • • • • • • • • • • • • • • • • •	10.9.2
againe	• • • • • · · • • · · · · • · · · · · ·	10.9.2
aggressive	• · · · • · • · · • · • · • · · · · · ·	10.6.5, 10.11.5
aghast	• • • • • • • • • · • · · · · · · · · ·	10.4.1
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Aix-en-Provence		10.6.9
Al	· · · · • · • · · · · · · · · · · · · ·	10.9.5
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almosts	• • • • • • • • • • • • • • • • • • •	10.9.2
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altimeter	• • • • • • • • • • • • • • • • • • •	10.7.8
amount	• • • • • • • • • • • • • • • • • • •	10.8.1
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andante	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10.3.1
Andy	· · • • • • • · • · • · • • • • • • • •	10.3.1
anemone	• • • • • • • • • • • • • • • • • • •	10.7.6
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anteroom	0 · 00 · 0 00 0 · 0 · 00 · · · · · · ·	10.4.1
anthill	0. 00 .0 00 0. 0. 0 00 00 00 0. 0.	10.4.1
antinode	• • • • • • • • • • • • • • • • • • •	10.6.8
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withe	· • • · · · · · · · · · · · · · · · · ·	10.3.1
wither		10.10.2
withered		10.7.2
within	••••	10.6.8
without		10.2.1, 10.3.1
withstand		10.3.1
word-for-word		10.7.1
Wordsworth	· · · • · • · • · • • • • • • • • • • •	10.7.1
workday		10.7.1
working	· · · • · • · · · · · · · · · · · · · ·	10.7.1
worldly		10.7.1
world-wide		10.7.1
would-be	· • • • · • · • · • · • · • · • · • · •	10.5.1
wounded		10.8.1
wrench		10.2.1
Wunderhorn		10.7.9
Xth	· · • • • • · · · · · · · · · · · · · ·	10.4.1
xxist	•• •• ·• ·• ·• ·• ·• ·• ·• ·• ·• ·• ·• ·	10.4.1
Yeats		10.6.5
you'd	•••••	10.1.2
you'll	•• · · • · • · · · · · · · · · · · · ·	10.1.2
you'm	•• •• · · •• •• •• • • •	10.1.2
youngest	· · • • • · · • · · · · · · · · · · · ·	10.7.1
Youngstown	· · · · • • · • · • • • • • • • • • • •	10.7.1
Yourcenar		10.9.2
	- I	

Appendix 2: Word List

_		_
つ	7	
,	•	4

you're	•• •• •• •• •• •• •• •• •• •• •• •• ••	10.1.2
you's	•• · · · • · · · · · · · · · · · · · ·	10.1.2
you've	•• •• ••	10.1.2

Appendix 3: Symbols List

This list of symbols is arranged according to braille order, i.e.

```
• •
              •
                      •••
Line 1: 🗄
          Line 2: 🗓
       .. .. .. ..
                      Line 3: 🗓
          •
     •
                Line 4: 🖫
       •••
              • •
                .. .. ..
     •
Line 5: •:
       Line 6:
```

Print column:

A dashed circle or is used to indicate the position of a letter or item for symbols that are placed in relation to text.

Unicode column:

The Unicode values given are not intended to be strictly definitive but are a useful reference. To insert a symbol in many Windows applications including Word, type the Unicode number then Alt-x. This method usually requires a space before the Unicode number.

Usage and reference column:

When not otherwise indicated, symbols are assumed to take a grade 1 meaning. "Grade 2" refers to the contracted meaning of the symbol.

References are enclosed in brackets, with the type of bracket indicating the source document as follows:

This document, *The Rules of Unified English Braille,* 2013 – round brackets ()

Unified English Braille Guidelines for Technical Material, October 2008 – square brackets []

Both these documents are available for download from the ICEB website at http://www.iceb.org/ueb.html.

Some symbols are not specified in either of these documents but have been included here for completeness.

Braille	Print	Unicode	Name	Usage and reference
	(space)	0020	space (no dots)	(3.23)
•:	а	0061	lowercase letter a	(4.1)
•:	1	0031	digit 1	numeric mode (6.1)
• · • · · · · · · · · · · · · · · · · ·	about		about	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	above		above	grade 2 (10.9)
•: ••	according		according	grade 2 (10.9)
• · • • • · · · · · · · · · · · · · · ·	across		across	grade 2 (10.9)
•: ••	after		after	grade 2 (10.9)
• · • • • • · · · · · · · · · · · · · ·	afternoon		afternoon	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	afterward		afterward	grade 2 (10.9)
•: ••	again		again	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	against		against	grade 2 (10.9)
• : • : : : : : : : : : : : : : : : : :	also		also	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	almost		almost	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	already		already	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	altogether		altogether	grade 2 (10.9)
	although		although	grade 2 (10.9)
	always		always	grade 2 (10.9)
•:	b	0062	lowercase letter b	(4.1)
• :	but		but	grade 2, standing alone (10.1)
• :	2	0032	digit 2	numeric mode (6.1)
• · • · • · · · · · · · · · · · · · · ·	blind		blind	grade 2 (10.9)
• · • · • · · · · · · · · · · · · · · ·	braille		braille	grade 2 (10.9)

Traide of Offinion		, , , , , , , , , , , , , , , , , , , ,	aix o. Cymbolo Elet	2//
Braille	Print	Unicode	Name	Usage and reference
••	С	0063	lowercase letter c	(4.1)
••	can		can	grade 2, standing alone (10.1)
••	3	0033	digit 3	numeric mode (6.1)
•• ••	could		could	grade 2 (10.9)
••	d	0064	lowercase letter d	(4.1)
••	do		do	grade 2, standing alone (10.1)
• • : •	4	0034	digit 4	numeric mode (6.1)
•• •• • • • • • • • • • • • • • • • • •	declare		declare	grade 2 (10.9)
•• •• ••	declaring		declaring	grade 2 (10.9)
•••••	deceive		deceive	grade 2 (10.9)
	deceiving		deceiving	grade 2 (10.9)
• · · · · · · · · · · · · · · · · · · ·	е	0065	lowercase letter e	(4.1)
• : :•	every		every	grade 2, standing alone (10.1)
• : : •	5	0035	digit 5	numeric mode (6.1)
• • • • • • • • • • • • • • • • • • • •	either		either	grade 2 (10.9)
••	f	0066	lowercase letter f	(4.1)
••	from		from	grade 2, standing alone (10.1)
••	6	0036	digit 6	numeric mode (6.1)
• • • · • · • · · · · · · · · · · · · ·	friend		friend	grade 2 (10.9)
•• ••	first		first	grade 2 (10.9)
**	g	0067	lowercase letter	(4.1)
••	go		go	grade 2, standing alone (10.1)
••	7	0037	digit 7	numeric mode (6.1)

Braille	Print	Unicode	Name	Usage and reference
•• ••	good		good	grade 2 (10.9)
•••••	great		great	grade 2 (10.9)
••	h	0068	lowercase letter h	(4.1)
•••	have		have	grade 2, standing alone (10.1)
• •	8	0038	digit 8	numeric mode (6.1)
••••	him		him	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	himself		himself	grade 2 (10.9)
•••••	herself		herself	grade 2 (10.9)
•:	i	0069	lowercase letter i	(4.1)
•:	9	0039	digit 9	numeric mode (6.1)
• • • • • • • • • • • • • • • • • • • •	immediate		immediate	grade 2 (10.9)
•••	j	006a	lowercase letter j	(4.1)
•••	just		just	grade 2, standing alone (10.1)
••	0	0030	digit 0	numeric mode (6.1)
••	e.g. ^J		corner with upward vertical	horizontal line mode (16.2)
•:	k	006b	lowercase letter k	(4.1)
•:	knowledge		knowledge	grade 2, standing alone (10.1)
•:	1	006c	lowercase letter I	(4.1)
• :	like		like	grade 2, standing alone (10.1)
• • • • • • • • • • • • • • • • • • • •	little		little	grade 2 (10.9)
• · • ·	letter		letter	grade 2 (10.9)
••	m	006d	lowercase letter m	(4.1)
••	more		more	grade 2, standing alone (10.1)

Braille	Print	Unicode	Name	Usage and reference
•• •• •• •• •• ••	myself		myself	grade 2 (10.9)
•• ••	much		much	grade 2 (10.9)
• · • · · · · · · · · · · · · · · · · ·	must		must	grade 2 (10.9)
••	n	006e	lowercase letter n	(4.1)
• • • • • • • • • • • • • • • • • • • •	not		not	grade 2, standing alone (10.1)
• • • • • • • • • • • • • • • • • • • •	necessary		necessary	grade 2 (10.9)
••••••	neither		neither	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	0	006f	lowercase letter o	(4.1)
•••	e.g. →		right pointing arrow (east), arrow terminator	arrow mode (11.6) [13.1]
••	p	0070	lowercase letter p	(4.1)
••	people		people	grade 2, standing alone (10.1)
• • • • • • • • • • • • • • • • • • •	paid		paid	grade 2 (10.9)
•• •• •• •• •• •• •• ••	perceive		perceive	grade 2 (10.9)
•• •• •• •• •• •• •• ••	perceiving		perceiving	grade 2 (10.9)
•• •• •• •• •• ••	perhaps		perhaps	grade 2 (10.9)
•••	q	0071	lowercase letter	(4.1)
•••	quite		quite	grade 2, standing alone (10.1)
• • • · · · · · · · · · · · · · · · · ·	quick		quick	grade 2 (10.9)
• · · • • · · · · · · · · · · · · · · ·	r	0072	lowercase letter r	(4.1)
• •	rather		rather	grade 2, standing alone (10.1)
•	e.g. →		regular barb, full, in line of direction	arrow mode (11.6) [13.3]

Braille	Print	Unicode	Name	Usage and reference
• • • • • • • • • • • • • • • • • • • •	receive		receive	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • •	receiving		receiving	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	rejoice		rejoice	grade 2 (10.9)
••••••	rejoicing		rejoicing	grade 2 (10.9)
•:	S	0073	lowercase letter s	(4.1)
••	SO		SO	grade 2, standing alone (10.1)
: :	e.g. ≯		up and right pointing arrow (northeast), arrow terminator	arrow mode [13.1]
• • • • • • • • • • • • • • • • • • • •	said		said	grade 2 (10.9)
••••	such		such	grade 2 (10.9)
••	t	0074	lowercase letter t	(4.1)
••	that		that	grade 2, standing alone (10.1)
	today		today	grade 2 (10.9)
	together		together	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	tomorrow		tomorrow	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	tonight		tonight	grade 2 (10.9)
•:	u	0075	lowercase letter u	(4.1)
• :	us		us	grade 2, standing alone (10.1)
•:	V	0076	lowercase letter v	(4.1)
• • • • • • • • • • • • • • • • • • • •	very		very	grade 2, standing alone (10.1)
••	X	0078	lowercase letter x	(4.1)
••	x	0078	lowercase letter x as a cross	(3.9)
••	it		it	grade 2, standing alone (10.1)

	Print	Unicode	Name	Usage and reference
•• ••	itself		itself	grade 2 (10.9)
•• *:			TGCII	grade 2 (10.5)
••••	its		its	grade 2 (10.9)
••	У	0079	lowercase letter y	(4.1)
••	you		you	grade 2, standing alone (10.1)
::	e.g. →		curved barb, full, in line	arrow mode [13.3]
••••	your		your	grade 2 (10.9)
•••••	yourself		yourself	grade 2 (10.9)
•••••••	yourselves		yourselves	grade 2 (10.9)
• • • • • • • • • • • • • • • • • • • •	Z	007a	lowercase letter z	(4.1)
• •	as		as	grade 2, standing alone (10.1)
••			superposition indicator	between two items [14.3.2]
••	and		and	grade 2 (10.3)
••			curved barb, full, counter	arrow mode [13.3]
••			cursor indicator	on a line by itself [17]
#			horizontal juxtaposition indicator	between two items [14.3.4]
••	for		for	grade 2 (10.3)
**	0		circle	shape mode (11.7) [14]
••			triple horizontal line segment	horizontal line mode (16.2)
••			general fraction open indicator	(11.3) [6]
••	of		of	grade 2 (10.3)
• •	ſ	222b	integral sign	[11]

Braille	Print	Unicode	Name	Usage and
Dianic		Onicode	rame	reference
• •	the		the	grade 2 (10.3)
	themselves		themselves	grade 2 (10.9)
••			general fraction close indicator	(11.3) [6]
•	with		with	grade 2 (10.3)
• ·				unassigned in grade 1
• • • • • • • • • • • • • • • • • • • •	ch		ch	grade 2 (10.4)
•:	child		child	grade 2, standing alone (10.2)
• • • • • • • • • • • • • • • • • • • •	children		children	grade 2 (10.9)
•:			opening braille grouping indicator	when followed by nonspace (3.4, 11.4) [7]
• •	gh		gh	grade 2 (10.4)
•:	e.g. ⊾		down and right pointing arrow (southeast), arrow terminator	arrow mode [13.1]
• :	e.g. —		crossing with left-leaning diagonal line	horizontal line mode (16.2)
•:			left-leaning single solid diagonal line segment	when surrounded by spaces/other diagonal line segments (16.3)
••	$\sqrt{}$		open radical (root)	(11.5) [8]
••	sh		sh	grade 2 (10.4)
••	shall		shall	grade 2, standing alone (10.2)
•• •• ••	e.g. ↓		down pointing arrow (south), arrow terminator	arrow mode (11.6) [13.1]
•••••	should		should	grade 2 (10.9)

Rules of Unified English Braille Appendix 3: Symbols List				
Braille	Print	Unicode	Name	Usage and reference
••			first transcriber- defined print symbol	(3.26) [11]
• • • • • • • • • • • • • • • • • • • •	th		th	grade 2 (10.4)
:•	this		this	grade 2, standing alone (10.2)
• • • • • • • • • • • • • • • • • • • •	thyself		thyself	grade 2 (10.9)
•· :•	্		bar over previous item	[12]
• • • • • • • • • • • • • • • • • • • •	wh		wh	grade 2 (10.4)
•· :•	which		which	grade 2, standing alone (10.2)
::	e.g. <		up and left pointing arrow (northwest), arrow terminator	arrow mode [13.1]
••			shape terminator	shape mode (11.7) [14.1]
•••			shape indicator	(3.22, 11.7) [14]
••	ed		ed	grade 2 (10.4)
••			vertical juxtaposition indicator	between two items [14.3.3]
••	er		er	grade 2 (10.4)
•••			arrow indicator	(3.2, 11.6) [13.1]
• •	ou		ou	grade 2 (10.4)
• • • • • • • • • • • • • • • • • • • •	out		out	grade 2, standing alone (10.2)
• • • • • • • • • • • • • • • • • • • •	e.g. ↦		straight barb, full (directionless)	arrow mode [13.3]
• • • • • • • • • • • • • • • • • • • •	ourselves		ourselves	grade 2 (10.9)
••			physical enclosure indicator	between two items (11.7) [14.3.1]

Braille	Print	Unicode	Name	Usage and reference
• • • • • • • • • • • • • • • • • • • •	ow		OW	grade 2 (10.4)
•••	e.g. ←		left pointing arrow (west), arrow terminator	arrow mode (11.6) [13.1]
::	W	0077	lowercase letter w	(4.1)
	will		will	grade 2, standing alone (10.1)
:			regular barb, full, counter to line of direction	
:•	e.g. +		crossing with vertical line	horizontal line mode (16.2)
	would		would	grade 2 (10.9)
• :	,	002c	comma	(7)
•:	,	002c	comma, comma as decimal	numeric mode (6)
•:	ea		ea	grade 2, preceded and followed by a letter (10.6)
•:	e.g>		short dotted line shaft	arrow mode (11.6) [13.2]
•••	e.g		variant horizontal line segment (e.g. dotted or dashed)	horizontal line mode (16.2)
•: •:	e.g>		medium dotted line shaft	arrow mode (11.6) [13.2]
•: •: •:	e.g>		long dotted line shaft	arrow mode (11.6) [13.2]
• :	;	003b	semicolon	(7)
: :	be		be	grade 2, forming the first syllable of a word (10.6)
•	bb		bb	grade 2, preceded and followed by a letter (10.6)

Trules of Offilied English Draille Appendix 3. Symbols List 285				
Braille	Print	Unicode	Name	Usage and reference
· · · · · · · · · · · · · · · · · · ·	be		be	grade 2, standing alone (10.5)
• • • • • • • • • • • • • • • • • • • •	because		because	grade 2 (10.9)
· · • • · · · · · · · · · · · · · · · ·	before		before	grade 2 (10.9)
	behind		behind	grade 2 (10.9)
· · • · · • · · · · · · · · · · · · · ·	below		below	grade 2 (10.9)
· · • • • • • • • • • • • • • • • • • •	beneath		beneath	grade 2 (10.9)
· · · • · • · • · · • · · · · · · · · ·	beside		beside	grade 2 (10.9)
· · · • · · · · · · · · · · · · · · · ·	between		between	grade 2 (10.9)
· · • • • • • • • • • • • • • • • • • •	beyond		beyond	grade 2 (10.9)
÷÷	:	003a	colon	(7)
••	:	2236	ratio	(3.17) [3]
•••	con		con	grade 2, forming the first syllable of a word (10.6)
•••	СС		СС	grade 2, preceded and followed by a letter (10.6)
••	e.g. →		short single straight line shaft	arrow mode (11.6)
•••	_		simple (solid single) horizontal line segment	horizontal line mode (16.2)
•••			strike through for tally marks	preceded by vertical line, followed by space [4.2]
· · · · · · · · · · · · · · · · · · ·	conceive		conceive	grade 2 (10.9)
· · · · · · · · · · · · · · · · · · ·	conceiving		conceiving	grade 2 (10.9)
•••••	::	2237	proportion	(3.17)
••••	e.g. →		medium single straight line shaft	arrow mode (11.6) [13.2]

Braille	Print	Unicode	Name	Usage and reference
•••••	e.g. →		long single straight line shaft	arrow mode (11.6) [13.2]
•••	•	002e	full stop (period), dot	(7)
•••	•	002e	full stop (period), decimal point	numeric mode (6)
•••	dis		dis	grade 2, forming the first syllable of a word (10.6)
*	e.g. ↓		shaft with sharp turn to the right (in line of direction)	arrow mode [13.2]
**	e.g. 7		corner with downward vertical	horizontal line mode (16.2)
** ** **	e.g		ellipsis	(7.3)
• • •	e.g. H ₂ O		subscript indicator	(3.24, 11.4) [7]
• • •	en		en	grade 2 (10.6)
• • • • • • • • • • • • • • • • • • • •	enough		enough	grade 2, standing alone (10.5)
•:	e.g. /		shaft curved or bent to the right (clockwise in line of direction)	arrow mode [13.2]
•••	Į.	0021	exclamation mark	(7)
•••	!	0021	factorial sign	[11]
: :	ff		ff	grade 2, preceded and followed by a letter (10.6)
**	,	2032	prime	distinguished from apostrophe in print (3.11, 3.15) [2.10, 10, 11]
::	gg		gg	grade 2, preceded and followed by a letter (10.6)

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Braille	Print	Unicode	Name	Usage and reference
••	were		were	grade 2, standing alone (10.5)
••	e.g. ⇒		short double line shaft	arrow mode (11.6) [13.2]
••	=		double horizontal line segment	horizontal line mode (16.2)
	"	2033	double prime	(3.11, 3.15) [2.10]
	e.g. ⇒		medium double line shaft	arrow mode (11.6) [13.2]
	e.g. ⇒		long double line shaft	arrow mode (11.6) [13.2]
• •	?	003f	question mark	(7.5)
•••	e.g. " or '		opening one-cell (nonspecific) quotation mark	before beginning of word (7.6)
· · · · · · · · · · · · · · · · · · ·	his		his	grade 2, standing alone (10.5)
•	e.g. x ²		superscript indicator	(3.24, 11.4) [7]
•••	in		in	grade 2 (10.5, 10.6)
	e.g. 🗡		shaft curved or bent to the left (anticlockwise in line of direction)	arrow mode [13.2]
••	e.g. " or '		closing one-cell (nonspecific) quotation mark	(7.6)
· · · · · · · · · · · · · · · · · · ·	was		was	grade 2, standing alone (10.5)
••	e.g. ↓		shaft with sharp turn to the left (in line of direction)	arrow mode [13.2]
• •	e.g. ½		simple numeric fraction line	numeric mode (6, 11.3) [6]
:• •:	st		st	grade 2 (10.4)
·• ··	still		still	grade 2, standing alone (10.2)

Braille	Print	Unicode	Name	Usage and reference
· • · · · · · · · · · · · · · · · · · ·	$\sqrt{}$		close radical (root)	(11.5) [8]
			visible space	[3.6, 17]
· • · · · · · · · · · · · · · · · · · ·	ing		ing	grade 2 (10.4)
:• ••	e.g. ↑		up pointing arrow (north), arrow terminator	arrow mode (11.6) [13.1]
••			spaced numeric indicator	before space (6.8) [4.1]
• • • • • • • • • • • • • • • • • • • •	1	0031	digit 1 and set numeric and grade 1 modes	(5.6, 6)
• • • • • • • • • • • • • • • • • • • •			regular undecagon (hendecagon)	shape mode [14]
• • • • • • • • • • • • • • • • • • • •			regular dodecagon	shape mode [14]
• • • • • • • • • • • • • • • • • • • •			regular decagon	shape mode [14]
• • • • • • • • • • • • • • • • • • • •	2	0032	digit 2 and set numeric and grade 1 modes	(5.6, 6)
• • • • • • • • • • • • • • • • • • • •	3	0033	digit 3 and set numeric and grade 1 modes	(5.6, 6)
• • • • • • • • • • • • • • • • • • • •	Δ		regular (equilateral) triangle	shape mode (11.7) [14]
• • • • • • • • • • • • • • • • • • • •	4	0034	digit 4 and set numeric and grade 1 modes	(5.6, 6)
			square	shape mode (11.7) [3.6, 14]
	5	0035	digit 5 and set numeric and grade 1 modes	(5.6, 6)
· • • · · · · · · · · · · · · · · · · ·			regular pentagon	shape mode [14]

	7 ppondix o. Symbolo Elot			
Braille	Print	Unicode	Name	Usage and reference
• • • • • • • • • • • • • • • • • • • •	6	0036	digit 6 and set numeric and grade 1 modes	(5.6, 6)
· • • • · · · · · · · · · · · · · · · ·			regular hexagon	shape mode [14]
	7	0037	digit 7 and set numeric and grade 1 modes	(5.6, 6)
			regular heptagon	shape mode [14]
:::::::::::::::::::::::::::::::::::::::	8	0038	digit 8 and set numeric and grade 1 modes	(5.6, 6)
• • •			regular octagon	shape mode [14]
:	9	0039	digit 9 and set numeric and grade 1 modes	(5.6, 6)
• • •			regular nonagon	shape mode [14]
•••	0	0030	digit 0 and set numeric and grade 1 modes	(5.6, 6)
• • •		2225	parallel to	[11]
	3	021d	lowercase yogh	(12)
· • • • • • • • • • • • • • • • • • • •	∞	221e	infinity sign	[11]
	þ	00fe	lowercase thorn	(12)
· • • · · · · · · · · · · · · · · · · ·	4	266e	natural	(3.18)
	Ь	266d	flat	(3.18)
· • • • · · · · · · · · · · · · · · · ·	#	266f	sharp	(3.18)
			second transcriber- defined print symbol	(3.26) [11]
· • • • • • • • • • • • • • • • • • • •	ð	00f0	lowercase eth	(12)
	р	01bf	lowercase wynn (wen)	(12)

Braille	Print	Unicode	Name	Usage and reference
•••	,	002c	decimal comma and set numeric and grade 1 modes	(6)
	•	002e	decimal point and set numeric and grade 1 modes	(6)
			numeric passage indicator	before space (6.9) [4.1]
• • •			numeric passage terminator	(6.9) [4.1]
	Т	22a5	perpendicular to (up tack)	[11]
	P	22be	measured right angle sign	[11]
••			closing braille grouping indicator	(3.4, 11.4) [7]
: • • •	ar		ar	grade 2 (10.4)
: • •	e.g. ⊬		down and left pointing arrow (southwest), arrow terminator	arrow mode [13.1]
••	e.g		crossing with right-leaning diagonal line	horizontal line mode (16.2)
•	/		right-leaning single solid diagonal line segment	when surrounded by spaces/other diagonal line segments (16.3)
:: •:	1	0027	apostrophe	(7)
•:	1	0027	nondirectional single quote	(7.6.6)
:: •:	1	0027	minutes	(3.11)
· · · · · · · · · · · · · · · · · · ·	1	0027	feet	(3.15)

Braille	Print	Unicode	Name	Usage and reference
•			opening non-UEB passage indicator terminator	following the commence opening non-UEB passage indicator (14)
:: •:			horizontal line mode terminator	horizontal line mode (16.2)
· · · · · · · · · · · · · · · · · · ·	-	002d	hyphen	(7.2) [3.3]
·••: :::::	@	0040	commercial at sign	(3.7) [11]
· • • • · · · · · · · · · · · · · · · ·	¢	00a2	cent sign	(3.10) [2.10]
· • • • · · · · · · · · · · · · · · · ·	9	2202	partial derivative (curly d)	[11]
· • • · · · · · · · · · · · · · · · · ·	€	20ac	euro sign	(3.10) [2.10]
· • • • · · · · · · · · · · · · · · · ·	F	20a3	French franc sign	(3.10) [2.10]
:•••• ::••	Ø	2205	null set (slashed zero)	[10]
· • • · · · · · · · · · · · · · · · · ·	£	00a3	pound sign (pound sterling)	(3.10) [2.10]
· • • • · · · · · · · · · · · · · · · ·	H	20a6	Naira sign	(3.10) [2.10]
· • • · · · · · · · · · · · · · · · · ·	e.g		regular barb, upper half, in line	arrow mode [13.3]
· • · • · · • · · · • ·	\$	0024	dollar sign	(3.10) [2.10]
· • • • • · · · · · · · · · · · · · · ·	¥	00a5	yen sign (yuan sign)	(3.10) [2.10]
· • • • · · · · · · · · · · · · · · · ·	e.g. —		curved barb, upper half, in line	arrow mode [13.3]
· • • • · · · · · · · · · · · · · · · ·	&	0026	ampersand	(3.1) [11]
:: ::			curved barb, upper half, counter	arrow mode [13.3]
· • · • · • · · · · · · · · · · · · · ·	\$	222e	closed line integral (small circle halfway up)	[11]
••••	<i>‡</i>	0338	solidus (forward slash) overlay on following letter	(4.2)

Braille	Print	Unicode	Name	Usage and reference
	<	003c	opening angle bracket	(7) [3, 5]
· • • · · · · · · · · · · · · · · · · ·	<	003c	less-than	(3.17, 11.2) [3]
::::	٦	00ac	"not" sign (line horizontal, then down at right)	[10]
	e.g. ∲ or ÷		line through previous item (cancellation, "not")	[3, 4.1.6, 12]
: • • •	e.g. 🚫		transcriber- defined shape indicator	(11.7) [14.2]
::••			straight barb, upper half (directionless)	arrow mode [13.3]
:: ••			regular barb, upper half, counter	arrow mode [13.3]
· · · · · · · · · · · · · · · · · · ·			script word indicator	(9)
· • · · · · · · · · · · · · · · · · · ·			script symbol indicator	(9)
: • • • • • • • • • • • • • • • • • • •		0336	horizontal stroke overlay on following letter	(4.2)
	^	005e	caret (hat)	(3.6) [11]
· • · · · · · · · · · · · · · · · · · ·	V	2228	or (upright v shape)	[10]
			script passage indicator	(9)
	٨	2227	and (inverted v shape)	[10]
: ::	~	007e	tilde (swung dash)	(3.25) [11]
:•:•	··	2235	"since" (three dots in inverted pyramid)	[11]

	Appendix 5. Symbols List				
Braille	Print	Unicode	Name	Usage and reference	
· • · • · · · · · · · · · · · · · · · ·	Ĭ	0306	breve above following letter	(4.2)	
· • · • • • · · · · · · · · · · · · · ·	e.g. 🗁		parallelogram	shape mode [14]	
			third transcriber- defined print symbol	(3.26) [11]	
: · · · · · · · · · · · · · · · · · · ·			first transcriber- defined typeform word indicator	(9)	
			first transcriber- defined typeform symbol indicator	(9)	
			first transcriber- defined typeform passage indicator	(9)	
: : : : : : : : : : : : : : : : : : : :			first transcriber- defined typeform terminator	(9)	
	>	003e	closing angle bracket	(7) [3, 5]	
· • · • · · · • · · •	>	003e	greater-than	(3.17, 11.2) [3]	
:: ::			script terminator	(9)	
	ੋ	0304	macron above following letter	(4.2)	
::::::::	Э	220b	contains as an element (reverse variant epsilon)	[10]	
	⊲	22b2	is a normal subgroup of (closed "less than")	[10]	
	e.g.		transcriber- defined filled (solid) shape indicator	[14.2]	
: : : : : : : : : : : : : : : : : : : :	4	22a3	reverse assertion ("T" lying on right side)	[10]	

Braille	Print	Unicode	Name	Usage and reference
	e.g. 		equilibrium arrow, trend to the left	[16]
	⊳	22b3	inverse "is normal subgroup" (closed "greater than")	[10]
	e.g. • •		quadruple dot for electrons or bond	[16]
	e.g.		quadruple dashed line bond	[16]
	e.g. x x x x		quadruple cross for electrons	[16]
	e.g. • •		quadruple small circle for electrons	[16]
	e.g. <u> </u>		quadruple line bond	[16]
• • • • • • • • • • • • • • • • • • • •			opening transcriber's note indicator	(3.27)
	e.g. 🥡		transcriber- defined shaded shape indicator	[14.2]
			closing transcriber's note indicator	(3.27)
	†	2020	dagger	(3.3)
	†	2020	dagger as a cross	(3.9)
· • · · • • · · · · · · · · · · · · · ·	‡	2021	double dagger	(3.3)
: :	e.g.		first variant vertical line segment	when surrounded by spaces/other vertical line segments (16.3)
:••:	A	2200	"for all" (inverted A)	[11]
. • • •	©	00a9	copyright sign	(3.8)

Appendix 3. Symbols List 295				
Braille	Print	Unicode	Name	Usage and reference
	∇	2207	del, nabla (inverted capital delta)	[11]
	€	2208	is an element of (variant epsilon)	[10]
: • • •	0	00b0	degree sign	(3.11) [2.10]
· • • • · · · · · · · · · · · · · · · ·	ŋ	014b	lowercase eng	(4.4)
· • • • · · · · · · · · · · · · · · · ·	¶	00b6	paragraph sign	(3.20)
. • • •	R	00ae	registered sign	(3.8)
	§	00a7	section sign	(3.20)
	ТМ	2122	trademark sign	(3.8)
· • • · · · · · · · · · · · · · · · · ·	upon		upon	grade 2 (10.7)
	9	2640	female sign (Venus)	(3.16)
· • • • · • · • · · • · · • · · •	3	2642	male sign (Mars)	(3.16)
· • • • • · · · · • • · · · · · · • • ·	्र	0327	cedilla below following letter	(4.2)
· • • · · · · · · · · · · · · · · · · ·			non-UEB word indicator	(14)
· • · • · · · · · · · · · · · · · · · ·	these		these	grade 2 (10.7)
			non-UEB word terminator	(14)
	े	0300	grave accent above following letter	(4.2)
	С	2282	contained in, is a subset of (U open to right)	[10]
	៌	0302	circumflex above following letter	(4.2)
· • • • • · • · • · • · • · • · • · • ·	those		those	grade 2 (10.7)

Braille	Print	Unicode	Name	Usage and reference
: • • • • • • • • • • • • • • • • • • •	ें		simple right- pointing arrow over previous item	[12]
· • • · · · · · · · · · · · · · · · · ·	whose		whose	grade 2 (10.7)
	ំ	030a	ring (circle) above following letter	(4.2)
· • • • • • · · · • · · · · •	ី	0303	tilde above following letter	(4.2)
· • • · · · · · · · · · · · · · · · · ·			bold arrow indicator	[13.1]
			calculator window	
	word		word	grade 2 (10.7)
:• ·:			boldface word indicator	(9)
			boldface symbol indicator	(9)
. •	៉	0308	dieresis (umlaut) above following letter	(4.2)
	்	0307	dot over previous item	[12]
	3	2203	"there exists" (reverse E)	[11]
· • · · · · · · · · · · · · · · · · · ·	e.g. æ		ligature indicator	(4.3, 12)
· • · · · · · · · · · · · · · · · · · ·			boldface passage indicator	(9)
	e.g. "	201c	opening double quotation mark	(7.6)
·•··· ·•·• ··•	*	2248	approximately equal to (tilde over tilde)	[3]
	e.g. "	201d	closing double quotation mark	(7.6)

Appendix 3. Symbols List 297				
Braille	Print	Unicode	Name	Usage and reference
: • · • : • · ·	ć	0301	acute accent above following letter	(4.2)
· • · • · · · · · · · · · · · · · · · ·	š	030c	caron (hacek, wedge) above following letter	(4.2)
: : : : : : : : : : : : : : : : : : : :			fourth transcriber- defined print symbol	(3.26) [11]
:::::::			second transcriber- defined typeform word indicator	(9)
			second transcriber- defined typeform symbol indicator	(9)
			second transcriber- defined typeform passage indicator	(9)
			second transcriber- defined typeform terminator	(9)
)	2283	contains, is a superset of (U open to left)	[10]
• • • • • • • • • • • • • • • • • • • •			boldface terminator	(9)
: ! :: • :			first transcriber- defined modifier on following letter	(4.2)
:• :• ::			second transcriber- defined modifier on following letter	(4.2)

Braille	Print	Unicode	Name	Usage and reference
: : : : : : : : : : : : : : : : : : : :	F	22a8	"is valid" sign (assertion with double stem on "T")	[10]
: : : : : : : : : : : : : : : : : : : :	+	21cc	equilibrium arrow (harpoons)	[16]
: : : : : :			third transcriber- defined modifier on following letter	(4.2)
: : : : : :	≏	224f	equals sign with bump in top bar (difference between or approximately equal)	[3]
	e.g. '		primary stress sign	(15.2)
	e.g. 1		high tone	(15.3)
	e.g. ↗		global rise	(15.3)
: • : • • :	e.g. `		high falling	(15.3)
: • : • • :	e.g. ″		high rising	(15.3)
· • · • · • · • · · · · · · · · · · · ·	e.g.↓		down step	(15.3)
	e.g. ↑		rise-fall	(15.3)
· • · • • • · · · · · · · · · · · · · ·	e.g.↑		up step	(15.3)
· · · · · · · · · · · · · · · · · · ·			secondary stress	(15.2)
	e.g. ⊦		mid tone	(15.3)
	e.g. 、		low falling	(15.3)
	e.g. ,		low rising	(15.3)
· • · • · · · · · · · · · · · · · · · ·	e.g. 🗸		global fall	(15.3)
	e.g. 🗸		fall-rise	(15.3)

Braille	Print	Unicode	Name	Usage and reference
	e.gl		low tone	(15.3)
	i	00a1	inverted exclamation mark	(13.5)
	خ	00bf	inverted question mark	(13.5)
· • · · · · · · · · · · · · · · · · · ·			line indicator, as in poetry	unspaced before, followed by space (15.1)
::	e.g.		vertical single solid line segment	when surrounded by spaces/other vertical line segments [4.1] (16.3)
· • · •			tally mark	[4.2]
			lowercase reserved non- Roman letter	
. • • .			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
· • • • · · · · · · · · · · · · · · · ·	cannot		cannot	grade 2 (10.7)
: • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
· • • · · · · · · · · · · · · · · · · ·			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
. • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
· • • · · · · · · · · · · · · · · · · ·			lowercase reserved non- Roman letter	

Braille	Print	Unicode	Name	Usage and reference
· • • · · · · · · · · · · · · · · · · ·	had		had	grade 2 (10.7)
:•:•			lowercase reserved non- Roman letter	
. • . •			lowercase reserved non- Roman letter	
• • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
• • • •			lowercase reserved non- Roman letter	
: • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
• • • • • • • • • • • • • • • • • • • •	many		many	grade 2 (10.7)
: • • • • · • · · · · · · · · · · · · ·			lowercase reserved non- Roman letter	
: • • •			lowercase reserved non- Roman letter	
: • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
· • · • · · · · · · · · · · · · · · · ·	spirit		spirit	grade 2 (10.7)
			lowercase reserved non- Roman letter	

	u English Braille		IIX 3. SYMBOIS LIST	301
Braille	Print	Unicode	Name	Usage and reference
• • • • • • • • • • • • • • • • • • • •			lowercase reserved non- Roman letter	
			lowercase reserved non- Roman letter	
· • • • • · · · · · · • • • • · · · · ·			lowercase reserved non- Roman letter	
· • • • • · • · • · • • • · • • • • • •			lowercase reserved non- Roman letter	
. • • •			lowercase reserved non- Roman letter	
· • • • • · • · • · • • • • • • • • • •	≡	2261	equivalent to (three horizontal lines)	[3]
· • · • · · · · · · · · · · · · · · · ·	their		their	grade 2 (10.7)
. • • ·	\	005c	reverse solidus (backslash)	(7) [11]
• • • • • • • • • • • • • • • • • • • •	{	007b	opening curly bracket (brace bracket)	(7) [5]
. • • • • • • • • • • • • • • • • • • •			opening Nemeth Code indicator	(14.6)
	#	0023	number sign (crosshatch, hash, pound sign)	(3.19) [11]
· • • · · · · · · · · · · · · · · · · ·	័	0303	tilde over previous item	[12]
	e.g. ■		filled (solid) shape indicator	[14]
	I	007c	vertical line in scansion	(15.1)
	I	007c	vertical bar in mathematics	[5, 11]
	2	2220	angle sign	[11]

Braille	Print	Unicode	Name	Usage and reference
			lowercase reserved non- Roman letter	
· • · • · • • •	world		world	grade 2 (10.7)
:••:			underlined word indicator	(9)
· • · · · · · · · · · · · · · · · · · ·			underlined symbol indicator	(9)
: 	F	22a6	assertion ("is a theorem" sign, "T" lying on left side)	[10]
. •	•	2022	bullet	(3.5)
· • · · · · · · · · · · · · · · · · · ·	Э	0259	lowercase schwa	(4.4)
	±	00b1	plus-or-minus (plus over minus)	[3]
· • · · · · · · · · · · · · · · · · · ·			underlined passage indicator	(9)
. • • • • • • • • • • • • • • • • • • •	«	00ab	opening Italian quotation mark (small double angle brackets)	(7.6)
· • · · · · · · · · · · · · · · · · · ·	~	2243	approximately equal to (tilde over horizontal straight line)	[3]
::::	*	00bb	closing Italian quotation mark (small double angle brackets)	(7.6)
	1	002f	solidus (forward slash)	(7, 15.1)
			fifth transcriber- defined print symbol	(3.26) [11]
:• :• ::			third transcriber- defined typeform word indicator	(9)

Braille	Print	Unicode	Name	Usage and reference
			third transcriber- defined typeform symbol indicator	(9)
			third transcriber- defined typeform passage indicator	(9)
			third transcriber- defined typeform terminator	(9)
	}	007d	closing curly bracket (brace bracket)	(7) [5]
			underline terminator	(9)
	Ŧ	2213	minus-or-plus (minus over plus)	[3]
	≤	2264	less than or equal to	[3]
	2	2265	greater than or equal to	[3]
	<u>⊆</u>	2286	contained in or equal to	[10]
	2	2287	contains or equal to	[10]
	⊴	22b4	is normal subgroup of or equal (closed "less than" with line under)	[10]
				unassigned/reserved
:::::::::::::::::::::::::::::::::::::::	₾	22b5	inverse "normal subgroup or equal" (closed "greater than" with line under)	[10]
				unassigned/reserved

Braille	Print	Unicode	Name	Usage and reference
	#		4 tally marks with strike through (representing 5 items)	[4.2]
	e.g. • •		triple dot for electrons or bond	[16]
	e.g. :::::		triple dashed line bond	[16]
	α	221d	is proportional to (varies as)	[3, 11]
	eg. x x		triple cross for electrons	[16]
	e.g. ° °		triple small circle for electrons	[16]
	e.g. <u> </u>		triple line bond	[16]
÷			line continuation indicator	at end of line (6.10) [1.4, 17]
•	e.g. 10 100	00a0	numeric space before digit 1	numeric mode (6.6)
	e.g. 10 200	00a0	numeric space before digit 2	numeric mode (6.6)
	e.g. 10 300	00a0	numeric space before digit 3	numeric mode (6.6)
· · • • · · · · · · · · · · · · · · · ·	day		day	grade 2 (10.7)
	e.g. 10 400	00a0	numeric space before digit 4	numeric mode (6.6)
· · • · · · · · · · · · · · · · · · · ·	ever		ever	grade 2 (10.7)
· · • · · · · · · · · · · · · · · · · ·	e.g. 10 500	00a0	numeric space before digit 5	numeric mode (6.6)
· · • • · · · · · · · · · · · · · · · ·	father		father	grade 2 (10.7)
· · • • · · · · · · · · · · · · · · · ·	e.g. 10 600	00a0	numeric space before digit 6	numeric mode (6.6)
· · • • · · · · · · · · · · · · · · · ·	e.g. 10 700	00a0	numeric space before digit 7	numeric mode (6.6)
· · • · · · · · · · · · · · · · · · · ·	here		here	grade 2 (10.7)

	English Brailis		an of the order	305
Braille	Print	Unicode	Name	Usage and reference
· · • · · · · · · · · · · · · · · · · ·	e.g. 10 800	00a0	numeric space before digit 8	numeric mode (6.6)
	e.g. 10 900	00a0	numeric space before digit 9	numeric mode (6.6)
· · · • • · · · · · · · · · · · · · · ·	e.g. 10 000	00a0	numeric space before digit 0	numeric mode (6.6)
· · • · · · · · · · · · · · · · · · · ·	know		know	grade 2 (10.7)
· · • · · · · · · · · · · · · · · · · ·	lord		lord	grade 2 (10.7)
· · • • · · · · · · · · · · · · · · · ·	mother		mother	grade 2 (10.7)
· · • • · · · · · · · · · · · · · · · ·	name		name	grade 2 (10.7)
· · • · · · · · · · · · · · · · · · · ·	one		one	grade 2 (10.7)
	oneself		oneself	grade 2 (10.9)
· · • • · · · · · · · · · · · · · · · ·	part		part	grade 2 (10.7)
· · • • · · · · · · · · · · · · · · · ·	question		question	grade 2 (10.7)
· · • · · · · · · · · · · · · · · · · ·	right		right	grade 2 (10.7)
· · · • · · · · · · · · · · · · · · · ·	some		some	grade 2 (10.7)
· · · • · · · · · · · · · · · · · · · ·	time		time	grade 2 (10.7)
· · • · · · · · · · · · · · · · · · · ·	under		under	grade 2 (10.7)
· · • • · • · · · · · · · · · · · · · ·	young		young	grade 2 (10.7)
:••• :•••			commences opening non-UEB passage indicator	followed by 📔 (14)
· · · · •	there		there	grade 2 (10.7)
•.	character		character	grade 2 (10.7)
: • • :	(0028	opening parenthesis (round bracket)	(7) [5]
	V	221a	radical without vinculum	[8]
	through		through	grade 2 (10.7)

Braille	Print	Unicode	Name	Usage and reference
· · · · · ·	ੰ		hat over previous item	[12]
	where		where	grade 2 (10.7)
	ought		ought	grade 2 (10.7)
:	work		work	grade 2 (10.7)
:••:	II	3003	ditto mark	(3.12)
:•••			horizontal line mode indicator	(16.2) [4.1]
	•	22c5	multiplication dot	[3]
:•••	e.g. •		single dot for electron or bond	[16]
	e.g		single dashed line bond	[16]
	+	002b	plus	(3.17, 11.2) [3]
· · · · · · · · · · · · · · · · · · ·	=	003d	equals	(3.17, 11.2) [3]
:•••	×	00d7	times (multiplication cross)	(3.17, 11.2) [3]
· • • • · · · • •	×	00d7	times as a cross	(3.9)
:••:	e.g. ×		single cross for electron	[16]
· · · · · · · · · · · · · · · · · · ·	*	002a	asterisk	(3.3) [11]
	0	2218	"hollow dot"	[11]
· · · · · · · · · · · · · · · · · · ·	e.g. o		single small circle for electron	[16]
: • · • · · · · · · · · · · · · · · · ·	÷	00f7	divided by	(3.17, 11.2) [3]
::::::			sixth transcriber- defined print symbol	(3.26) [11]
; • ;• • ;			fourth transcriber- defined typeform word indicator	(9)

Braille	Print	Unicode	Name	Usage and reference
			fourth transcriber- defined typeform symbol indicator	(9)
			fourth transcriber- defined typeform passage indicator	(9)
: : : : : : : : : : : : : : : : : : : :			fourth transcriber- defined typeform terminator	(9)
:• :•)	0029	closing parenthesis (round bracket)	(7) [5]
:••• :•••	_	2212	minus (when distinguished from hyphen)	(3.17, 11.2) [3]
		005b	opening IPA bracket, opening square bracket with switch from UEB to IPA	(14.4)
:• :• :•	/	002f	opening IPA slash, opening solidus (forward slash) with switch from UEB to IPA	(14.4)
· · · · · · · · · · · · · · · · · · ·	e.g.	=	equilibrium arrow, trend to the right	[16]
:::::::::::::::::::::::::::::::::::::::	~	2245	tilde over equals sign (approximately equal)	[3]
:• :•			line continuation indicator with space	at end of line (6.10) [17]

Braille	Print	Unicode	Name	Usage and reference
: • : •			guide dots	with space before and after (16.5)
			dot locator for "use"	(3.14) [1.7]
			general opening IPA indicator	(14.4)
	_	2015	long dash	(7.2) [3.6]
••••	α	03b1	lowercase Greek alpha	(4.5) [11.7]
	β	03b2	lowercase Greek beta	(4.5) [11.7]
	δ	03b4	lowercase Greek delta	(4.5) [11.7]
	ound		ound	grade 2, following a letter (10.8)
	3	03b5	lowercase Greek epsilon	(4.5) [11.7]
	ance		ance	grade 2, following a letter (10.8)
	φ	03c6	lowercase Greek phi	(4.5) [11.7]
	γ	03b3	lowercase Greek gamma	(4.5) [11.7]
	l	03b9	lowercase Greek iota	(4.5) [11.7]
:::::	Θ		"normal" (superscript circle crossed by horizontal line)	
	κ	03ba	lowercase Greek kappa	(4.5) [11.7]
. • • .	λ	03bb	lowercase Greek lambda	(4.5) [11.7]
	μ	03bc	lowercase Greek mu	(4.5) [11.7]
	ν	03bd	lowercase Greek nu	(4.5) [11.7]
	sion		sion	grade 2, following a letter (10.8)

	Appendix 6. Gymbole Llot				
Braille	Print	Unicode	Name	Usage and reference	
	0	03bf	lowercase Greek omicron	(4.5) [11.7]	
· • • • · · · · · · · · · · · · · · · ·	π	03c0	lowercase Greek pi	(4.5) [11.7]	
	ρ	03c1	lowercase Greek rho	(4.5) [11.7]	
· • · • · · • · · • • ·	σ Or ς	03c3 or 03c2	lowercase Greek sigma	(4.5) [11.7]	
· • · • · · · · · · · · · · · · · · · ·	less		less	grade 2, following a letter (10.8)	
· • · • · · • • · • • ·	τ	03c4	lowercase Greek tau	(4.5) [11.7]	
· • · • · · • • · • • ·	ount		ount	grade 2, following a letter (10.8)	
· • • · · · · · · · · · · · · · · · · ·	υ	03c5	lowercase Greek upsilon	(4.5) [11.7]	
· • • • • · · · · · · • • • • • • • • •	٤	03be	lowercase Greek xi	(4.5) [11.7]	
· • • • • • • • • • • • • • • • • • • •	Ψ	03c8	lowercase Greek psi	(4.5) [11.7]	
· • • · · · · · · · · · · · · · · · · ·	ζ	03b6	lowercase Greek zeta	(4.5) [11.7]	
· • • • · · · · · · · · · · · · · · · ·	χ	03c7	lowercase Greek chi	(4.5) [11.7]	
· • • • • • • • • • • • • • • • • • • •			dot locator for "mention"	(3.13)	
:••:	`	0060	grave accent alone		
· • • · · · · · · · · · · · · · · · · ·	Г	005b	opening square bracket	(7) [5]	
· • • • · • · · • · · • · · • · · •	θ	03b8	lowercase Greek theta	(4.5) [11.7]	
. • • • • • • • • • • • • • • • • • • •	η	03b7	lowercase Greek eta	(4.5) [11.7]	
· • • • · · · · · · · · · · · · · · · ·	e.g. [⊠]		shaded shape indicator	[14]	
· • • · · · · · · · · · · · · · · · · ·	I I	00a6	broken vertical bar	[11]	
· • · • · · • • · • · •	ω	03c9	lowercase Greek omega	(4.5) [11.7]	

Braille	Print	Unicode	Name	Usage and reference
			italic word indicator	(9)
· • · · · · · · · · · · · · · · · · · ·			italic symbol indicator	(9)
			directly below	[7]
· • · · · · · · · · · · · · · · · · · ·	U	222a	union (upright U shape)	[10]
· • · · · · · · · · · · · · · · · · · ·			italic passage indicator	(9)
	n	2229	intersection (inverted U shape)	[10]
· • · · · · · · · · · · · · · · · · · ·			directly above	[7]
· • · · · · · · · · · · · · · · · · · ·	%	0025	percent sign	(3.21) [2.10]
	e.g. $\frac{x}{4}$		general fraction line	(11.3) [6]
			seventh transcriber- defined print symbol	(3.26) [11]
			fifth transcriber- defined typeform word indicator	(9)
			fifth transcriber- defined typeform symbol indicator	(9)
			fifth transcriber- defined typeform passage indicator	(9)
			fifth transcriber- defined typeform terminator	(9)
· • · • · • • •]	005d	closing square bracket	(7) [5]
. •			italic terminator	(9)
• • • •	_	005f	low line (underscore)	(7.2) [3.6, 11]

Appendix 3. Symbols List				
Braille	Print	Unicode	Name	Usage and reference
	«	226a	is much less than	[3]
· · · · · · · · · · · · · · · · · · ·	≫	226b	is much greater than	[3]
	Ç	228a	contained in, but not equal to (proper subset)	[10]
	⊋	228b	contains, but is not equal to (proper superset)	[10]
:• :• •:	\triangleleft		normal subgroup but not equal (closed "less than" with cancelled line under)	[10]
	៝		arc over previous item	[12]
	*	2221	measured angle sign	[11]
	╡	2ae4	reverse "is valid" sign	[10]
:::::::::::::::::::::::::::::::::::::::	↓		inverse "normal subgroup but not equal" (closed "greater than" with cancelled line under)	[10]
	e.g. •		double dot for electrons or bond	[16]
	e.g		double dashed line bond	[16]
	÷	2251	equals sign dotted above and below (approximately equal)	[3]
	e.g. x		double cross for electrons	[16]

Braille	Print	Unicode	Name	Usage and reference
:• :• :•	e.g. o		double small circle for electrons	[16]
	e.g. ===		double line bond	[16]
: :			grade 1 symbol indicator	(5.2) [1.7]
· · • · · · · · · · · · · · · · · · · ·	ence		ence	grade 2, following a letter (10.8)
	ong		ong	grade 2, following a letter (10.8)
	ful		ful	grade 2, following a letter (10.8)
	tion		tion	grade 2, following a letter (10.8)
	ness		ness	grade 2, following a letter (10.8)
	ment		ment	grade 2, following a letter (10.8)
	ity		ity	grade 2, following a letter (10.8)
			grade 1 terminator	(5.5) [1.7]
			grade 1 word indicator	(5.3) [1.7]
			grade 1 passage indicator	(5.4) [1.7]
•	Α	0041	capital letter A	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	В	0042	capital letter B	(4.1, 8)
	С	0043	capital letter C	(4.1, 8)
:: •• :: •• :• ::	D	0044	capital letter D	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	E	0045	capital letter E	(4.1, 8)
:: •• :: •: :•::	F	0046	capital letter F	(4.1, 8)
· · • • · · · · · · · · · · · · · · · ·	G	0047	capital letter G	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	Н	0048	capital letter H	(4.1, 8)

Braille	Print	Unicode	Name	Usage and reference
	I	0049	capital letter I	(4.1, 8)
· · · · • · · · · · · · · · · · · · · ·	J	004a	capital letter J	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	K	004b	capital letter K	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	L	004c	capital letter L	(4.1, 8)
· · • • · · · · · · · · · · · · · · · ·	М	004d	capital letter M	(4.1, 8)
	N	004e	capital letter N	(4.1, 8)
	0	004f	capital letter O	(4.1, 8)
· · • • · · · · · · · · · · · · · · · ·	Р	0050	capital letter P	(4.1, 8)
· · • • · · · · · · · · · · · · · · · ·	Q	0051	capital letter Q	(4.1, 8)
	R	0052	capital letter R	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	e.g		regular barb, lower half, in line	arrow mode [13.3]
	S	0053	capital letter S	(4.1, 8)
	Т	0054	capital letter T	(4.1, 8)
•	U	0055	capital letter U	(4.1, 8)
· · • · · · · · · · · · · · · · · · · ·	V	0056	capital letter V	(4.1, 8)
· · •• · · · ·	X	0058	capital letter X	(4.1, 8)
· · •• · · · ·	X	0058	capital letter X as a cross	(3.9)
· · •• · · • •	Υ	0059	capital letter Y	(4.1, 8)
· · • • · · · · · · · · · · · · · · · ·	e.g. —		curved barb, lower half, in line	arrow mode [13.3]
· · • · · · · · · · · · · · · · · · · ·	Z	005a	capital letter Z	(4.1, 8)
			curved barb, lower half, counter	arrow mode [13.3]
:: •:	··	2234	"therefore" (three dots in upright pyramid)	[11]

Braille	Print	Unicode	Name	Usage and reference
	e.g. ``.		variant left- leaning diagonal line segment	when surrounded by spaces/other diagonal line segments (16.3)
	<u> </u>		bar under previous item	[12]
· · · · · · · · · · · · · · · · · · ·			straight barb, lower half (directionless)	arrow mode [13.3]
· · · • · • · • · • · • · • · • · • · •	W	0057	capital letter W	(4.1, 8)
::::			regular barb, lower half, counter	arrow mode [13.3]
····	II	0022	nondirectional double quotation mark	(7.6.6) [17]
· · · · · · · · · · · · · · · · · · ·	II	0022	seconds	(3.11)
· · · · · · · · · · · · · · · · · · ·	11	0022	inches	(3.15)
· · · · · · · · · · · · · · · · · · ·	e.g. `	2018	opening single quotation mark	(7.6)
	e.g. '	2019	closing single quotation mark	(7.6)
	3	021c	capital yogh	(12)
	Þ	00de	capital thorn	(12)
	Ð	00d0	capital eth	(12)
	p	01f7	capital wynn (wen)	(12)
	e.g.		variant right- leaning diagonal line segment	when surrounded by spaces/other diagonal line segments (16.3)
· · · · · · · · · · · · · · · · · · ·			capitals terminator	(8.6)
::::: :••:			opening music indicator	when following a space (14.5)
	_	2014	dash	when distinguished from a hyphen in the print (7.2)

Appendix 3. Symbols List				
Braille	Print	Unicode	Name	Usage and reference
	e.g. —	_	single line bond	[16]
	⊅	0338	solidus (forward slash) overlay on following capital letter	(4.2)
:::::::	Θ	0336	horizontal stroke overlay on following capital letter	(4.2)
	ŏ	0306	breve above following capital letter	(4.2)
	Ō	0304	macron above following capital letter	(4.2)
	Ŋ	014a	capital eng	(4.4)
	Ç	0327	cedilla below following capital letter	(4.2)
	े	0300	grave accent above following capital letter	(4.2)
	î	0302	circumflex above following capital letter	(4.2)
	੍ਰ		simple right- pointing arrow under previous item	[12]
	ំ	030a	circle (ring) above following capital letter	(4.2) [2.10]
	Õ	0303	tilde above following capital letter	(4.2)
	Ö	0308	dieresis/umlaut above following capital letter	(4.2)

Braille	Print	Unicode	Name	Usage and reference
	়	0323	dot under previous item	[12]
			ligature indicator where only the following letter is capitalised	(4.3, 12)
	Ó	0301	acute accent above following capital letter	(4.2)
:::::	č	030c	caron (hacek, wedge) above following capital letter	(4.2)
			first transcriber- defined modifier on following capital letter	(4.2)
			second transcriber- defined modifier on following capital letter	(4.2)
:: :: :: ::			third transcriber- defined modifier on following capital letter	(4.2)
	e.g.		second variant vertical line segment	when surrounded by spaces/other vertical line segments (16.3)
			capital reserved non-Roman letter	
			capital reserved non-Roman letter	
			capital reserved non-Roman letter	
			capital reserved non-Roman letter	
			capital reserved non-Roman letter	

	a Englion Braillo	• • • • • • • • • • • • • • • • • • • •	TIX 0. CYTIDOIO LIST	31/
Braille	Print	Unicode	Name	Usage and reference
			capital reserved	
			non-Roman letter	
			capital reserved	
. • . •			non-Roman letter	
			capital reserved	
. • . •			non-Roman letter	
			capital reserved	
. • . •			non-Roman letter	
			capital reserved	
. • . •			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
. • . • • .			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
. • . • • .			non-Roman letter	
			capital reserved	
. • . • • .			non-Roman letter	
			capital reserved	
. • . • • .			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	
			capital reserved	
			non-Roman letter	

Braille	Print	Unicode	Name	Usage and reference
	{		multi-line opening curly bracket	(7.7) [5, 15]
	្ថ	0330	tilde under previous item	[12]
			multi-line vertical bar	[5, 15]
			capital reserved non-Roman letter	
	Ә	018f	capital schwa	(4.4)
:::0::0::0::0::0::0::0::0::0::0::0::0::	}		multi-line closing curly bracket	(7.7) [5, 15]
			closing non-UEB passage indicator	(14)
			multi-line opening round parenthesis	(7.7, 11.8) [5, 15]
	्र	032d	hat under previous item	[12]
: : : : : : : : : : : : : : : : : : : :			multi-line closing round parenthesis	(7.7, 11.8) [5, 15]
	A	0391	capital Greek alpha	(4.5, 8) [11.7]
	В	0392	capital Greek beta	(4.5, 8) [11.7]
	Δ	0394	capital Greek delta	(4.5, 8) [11.7]
	Е	0395	capital Greek epsilon	(4.5, 8) [11.7]
	Φ	03a6	capital Greek phi	(4.5, 8) [11.7]
	Γ	0393	capital Greek gamma	(4.5, 8) [11.7]
	I	0399	capital Greek iota	(4.5, 8) [11.7]
	K	039a	capital Greek kappa	(4.5, 8) [11.7]
	Λ	039b	capital Greek lambda	(4.5, 8) [11.7]

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Braille	Print	Unicode	Name	Usage and reference	
	M	039c	capital Greek mu	(4.5, 8) [11.7]	
	N	039d	capital Greek nu	(4.5, 8) [11.7]	
	О	039f	capital Greek omicron	(4.5, 8) [11.7]	
	П	03a0	capital Greek pi	(4.5, 8) [11.7]	
	P	03a1	capital Greek rho	(4.5, 8) [11.7]	
	Σ	03a3	capital Greek sigma	(4.5, 8) [11.7]	
	T	03a4	capital Greek tau	(4.5, 8) [11.7]	
	Y	03a5	capital Greek upsilon	(4.5, 8) [11.7]	
	[E]	039e	capital Greek xi	(4.5, 8) [11.7]	
	Ψ	03a8	capital Greek psi	(4.5, 8) [11.7]	
	Z	0396	capital Greek zeta	(4.5, 8) [11.7]	
	X	03a7	capital Greek chi	(4.5, 8) [11.7]	
			multi-line opening square bracket	(7.7) [5, 15]	
	Θ	0398	capital Greek theta	(4.5, 8) [11.7]	
	Н	0397	capital Greek eta	(4.5, 8) [11.7]	
	Ω	03a9	capital Greek omega	(4.5, 8) [11.7]	
			multi-line closing square bracket	(7.7) [5, 15]	
			capitalised word indicator	(8.4)	
			capitalised passage indicator	(8.5)	