Revision Log for Uploads of
AN INTRODUCTION TO BRAILLE MATHEMATICS
Using UEB and the Nemeth Code
Provisional Online Edition 2017

Updated: 8-1-2020

This document contains information about revisions to the uploaded PDF and BRF files of An Introduction to Braille Mathematics Using UEB and the Nemeth Code, Provisional Online Edition 2017. Individuals who downloaded these files prior to the current upload dates should note this information about what has been changed or should download the most recent copy and discard the old one. Upload dates are reflected in each filename as well as in the footer of the print document and the title page of the braille document.

Changes were made to LESSON 4 the following files in this update.

Please report errors by sending an email to: transcribers@nfb.org.

FRONT MATTER

February 17, 2017: First upload
April 25, 2017: First revision
   Added the revision date (footer in PDF; on title page in BRF); changed prerequisite title to Braille Formats 2016 (Pre-Publication Release); edited/added text to the first paragraph under the heading ABOUT THE PROVISIONAL ONLINE EDITION
   BRF: Added a braille page number to even-numbered pages.
July 24, 2017: Second revision
   BRF: title page: Lines 17-18 changed to say "Transcribed 2017 into Unified English Braille and Nemeth Braille by Lindy Walton"; inserted numeric indicator on line 24; Special Symbols page: added symbols according to Braille Formats Appendix G.
February 1, 2018: Third revision
   "ABOUT" page: "completed" changed to "completely".
May 15, 2018: Fourth revision
   Foreword: Sentence added regarding Appendix A; name added to thank yous.
   Complete Table of Contents merged with Front Matter file.
June 25, 2018: Fifth revision
   Table of Contents:
   14.12.2 moved to become new "14.21 Margins for Embedded Expressions".
   14.21-14.26 renumbered as 14.22-14.27
   14.23-14.25: Heading changed to "Square Root Division"
   17.8-17.11 updated.
   18.5.3 title changed to "Context-Dependent Formats"
May 22, 2019: Sixth revision
Foreword: "Grafton Braille Service Center" added to list of helpers.
Repaired Roman page numbers

May 9, 2020: Seventh revision
Title Page: Changed book title to "AN INTRODUCTION TO BRAILLE MATHEMATICS USING NEMETH CODE WITHIN UEB CONTEXTS" and added the subtitle "A Course for Transcribers"
Table of Contents: "4.1.1 Capitalization" added.
BRF: Added a running head.

ALL BRAILLE FILES
August 28, 2018
Changes made to reflect new guidelines:
Special Symbols page: Nemeth Code symbols included in the main symbols list, with (Nemeth Code symbol) added to the end of the description
Transcriber’s Notes page: Changes made to the statement about the Nemeth Codebook and the Guidance document.

May 9, 2020
Title page: Book title changed to "AN INTRODUCTION TO BRAILLE MATHEMATICS USING NEMETH CODE WITHIN UEB CONTEXTS: A Course for Transcribers"

LESSON 1
February 17, 2017: First upload
April 25, 2017: First revision
1.10: Clarified statement about Special Symbols page.
See also "Shared Note" #1 on the last page of this document.

July 24, 2017: Second revision
PDF: Brief contents: "General Rules" changed to "General Principles"; 1.7: "(blank lines)" inserted to clarify the term "line spacing".
BRF: 1.7: "(blank lines)" inserted to clarify the term "line spacing".
See also "Shared Note" #2 on the last page of this document.

February 1, 2018: Third revision
1.3.1, 1.4.1, 1.5, 1.6: Language clarified.
Example 1.3-1: Line numbers added to print copy.
Instructions before Practice 1A: First paragraph: "he" changed to "the"; second paragraph revised.
Practice 1B: "0.37" corrected in answer section.
See also "Shared Note" #3 on the last page of this document.

May 15, 2018: Fourth revision
BRF: page t3, Deleted all three switch indicators on Special Symbols page.
BRF: Practice 1B: Added transcriber's note referring to notes at end of lesson.
See also "Shared Note" #4 on the last page of this document.

August 28, 2018: Fifth revision
1.10: "is" changed to "are" in the BANA decision box.

May 22, 2019: Sixth revision
1.10: BANA box and text: The text regarding the Special Symbols page has been deleted.
May 9, 2020: Seventh revision
1.3.1, last paragraph: "plural numbers" added to what is considered to be an unmodified number.
New example 1.3-4

LESSON 2
February 17, 2017: First upload
April 25, 2017: First revision
Practice 2E: Braille corrected to use a 40-cell line.
See also "Shared Note" #1 on the last page of this document.
July 24, 2017: Second revision
PDF: 2.14: Deleted the word "All" in "All paragraphs".
BRF: Example 2.7-7: Dot 6 deleted from minus sign in commentary; 2.14: deleted the word "All" in "All paragraphs"; Answer section: lesson number deleted from combined page numbers.
See also "Shared Note" #2 on the last page of this document.
February 1, 2018: Third revision
2.1: Language clarified regarding the term "switch".
2.3: Two additional paragraphs and examples added (Examples 2.3-5 and 2.3-6).
Example 2.4-1: Citation added to comment.
Example 2.5-5: Changed "12s" to "twelves".
Examples in 2.5.3 (print copy only): Added line numbers.
Practice 2C: Second paragraph changed.
Practice 2D: Added a period at the end of the second paragraph.
Example 2.7-2: Clarification added to the comment.
Example 2.7-3: Comment added.
Example 2.7-5: "Dan" changed to "Danny".
Text preceding Example 2.10-2: "UEB dash" changed to "UEB underscore".
2.14: Word added to note.
See also "Shared Note" #3 on the last page of this document.
May 15, 2018: Fourth revision
BRF: page t3: Deleted single-word switch indicator on Special Symbols page.
2.1, note: "See Appendix A" changed to "See Lesson 18".
BRF: Practice 2E, F: Added transcriber's note referring to notes at end of lesson.
See also "Shared Note" #4 and #5 on the last page of this document.
August 28, 2018: Fifth revision
Example 2.7-5 (braille and simbraille): letter “p” changed to capitalized letter “P” in the word “Phew!!”
May 22, 2019: Sixth revision
2.1: Sentence added to second paragraph: "UEB symbols are not used inside of the Nemeth Code switches."
July 8, 2019: Seventh revision
Answers to PRACTICE 2C (print copy only): The first word "How" indented to begin in cell 3.
May 9, 2020: Eighth revision
2.1: Added "and indicators" to second sentence after box.

LESSON 3
February 17, 2017: First upload
April 25, 2017: First revision
3.5.3 Clock Time: Entire section rewritten; Example 3.18-2: replaced; Example 3.19-1: shadow dots added to PDF copy.
See also "Shared Note" #1 on the last page of this document.
LESSON 4

May 15, 2018: Fourth revision
BRF: page 13: Deleted single-word switch indicator on Special Symbols page.
See also "Shared Note" #4 and #5 on the last page of this document.

May 9, 2020: Fifth revision
3.4: "Inner quotation marks" deleted from the table. BANA box inserted regarding future rule about "single" quotation marks in Nemeth context.
Example 3-17-1: "122" changed to "144"

LESSON 4

February 17, 2017: First upload
April 25, 2017: First revision
Many changes made in the first three sections and the following sections are renumbered: paragraph after Practice 4B: "in a later lesson" changed to "in Lesson 5"; answers to Practice 4C corrected to use a 40-cell braille line; FORMAT SUMMARY #2, last item: removed "or letter".
See also "Shared Note" #1 on the last page of this document.

July 24, 2017: Second revision
BRF: A displayed chevron item moved to cell 3 (from cell 5); inserted a blank line before Example 4.6-4; inserted a blank line before section 4.6.4; removed the box lines around the full-page Practice 4E; FORMAT SUMMARY #2, last item: removed "or letter".
See also "Shared Note" #2 on the last page of this document.

February 1, 2018: Third revision
Example 4.2-1 (line 2): Contracted "sh" in "Shape".
Example 4.2-5 Removed; 4.2-6 renumbered.
4.3: First sentence clarified.
Example 4.3-2: Remark reworded.
Practice 4A:
--Sentence "B" (braille): period deleted from the end.
--Sentence "C" (braille): the word "named" moved to fall at the end the first line.
regarding blank entries, unused column headings deleted from the third page of the table; pagination readjustments for a couple of pages after the Greek Alphabet Table.
See also "Shared Note" #2 on the last page of this document.

February 1, 2018: Second revision
Practice 5A, braille edition: Item #1, the opening Nemeth Code indicator moved to begin the runover line.
Example 5.3-1, first line of braille: "Formulas" contracted and "to" moved up to that line.
5.3.1: Last sentence deleted.
5.3.2: Removed redundancy; changed "is" to "are"; last sentence deleted.
Example 5.3-2: Sentence rearranged to include a comma; comment reworded.
5.5: Clarification added regarding required switch to Nemeth Code; cross-reference added.
Example 5.5-1: Wording changed; comment added.
Example 5.5-2: Comment added.
Example 5.9-4, Braille edition: Transcriber's Note indicators removed.
Practice 5F:
--Third sentence: opening quotation mark moved; note added regarding placement of the opening quotation mark before the switch indicator.
--Fourth sentence: a second sentence has been added to the note.
--Last sentence: comment rewritten.
Example 5.15-6: P(3 and 7) changed to P(3 AND 7); explanation of logical operators added to the comment.
New example 5.15-16 and accompanying text.
Practice 5G (braille), 16th item removed; opening parenthesis inserted before "San Antonio"; runover margins corrected.
Example 5.16-3: P(A and B) changed to P(A AND B).
Practice 5H:
--Item C: comma inserted after "nth".
--Item E: not and or changed to NOT and OR.
Example 5.23-1: Clarification added to the comment.
5.24: Entirely revised, including new subsections 5.24.1 and 5.24.2.
Practice 5I: Deleted first two sentences in the instructions.
See also "Shared Note" #3 on the last page of this document.

May 15, 2018: Third revision
BRF: Practice 5F: Added transcriber's note referring to notes at end of lesson.
See also "Shared Note" #4 and #5 on the last page of this document.

June 25, 2018: Fourth revision
Practice 5C: Letter a changed to letter A in the second sentence.

August 28, 2018: Fifth revision
Example 5.9-5: (Nemeth Code) changed to (Nemeth Code symbol)

May 22, 2019: Sixth revision
5.2, second sentence: word "cues" changed to "clues"
5.10, second box: third letter name changed to "Fao"
5.12, second box: third letter name changed to "Shah"
Example 5.21-4, commentary “5.1.1” changed to “5.1.2”

May 9, 2020: Seventh revision
5.16, third paragraph, second sentence: deleted the word "be".

LESSON 6
April 25, 2017: First upload
July 24, 2017: First revision
6.7: Wording change (clarification).
See also "Shared Note" #2 on the last page of this document.

**February 1, 2018: Second revision**

6.2: New paragraph added to the end.
6.3: Language clarified (after the table).
6.3.1-6.3.6: Each symbol is restated before the examples.
6.4.1-6.4.12: Each symbol is restated before the examples.
6.5: Text clarified; print example inserted before commentary; another line added to sample; commentary adjusted accordingly. BRF: ellipsis corrected to Nemeth Code symbol.
Example 6.7-2: Deleted a space within the word “Relational” in the braille.
6.10: Added "Negated Perpendicular To" symbol; added to the second example.
Practice 6F: Instructions added (to treat the headings as cell-5 headings) and in the braille copy the headings were adjusted.
See also "Shared Note" #3 on the last page of this document.

**May 15, 2018: Third revision**

6.5: Symbols box added to show column separation line and guide dots.
6.5 (print): Commentary moved to follow the braille example.
BRF: Practice 6C: Added transcriber's note referring to notes at end of lesson.
Practice 6F: The first three item numbers 1. 2. 3. (braille) changed to (1) (2) (3) to match print.
See also "Shared Note" #4 and #5 on the last page of this document.

**May 22, 2019: Fourth revision**

Example 6.7-6, line 1: English letter indicator inserted before the first letter "x"
Example 6.11-1: Line 10 - Nemeth code terminator deleted; Line 13 - Single-word switch indicator inserted before “Multiply.”; opening Nemeth code indicator deleted following the word "Multiply."

**LESSON 7**

**July 24, 2017: First upload**

**February 1, 2018: First revision**

7.10: Changed fifth sentence slightly.
Example 7.11-3, note: The specific section number in the Braille Formats citation was removed.
Example 7.18-1: Nemeth Code terminator deleted from the end of item b; single-word switch indicator applied to the word "If" at the beginning of item c; punctuation indicators added before the two periods which now fall inside the switches.
Practice 7C: Nemeth Code terminator removed from the end of item 2 as Nemeth Code continues in item 3; punctuation indicators adjusted and identifier "3" changed to Nemeth Code.
See also "Shared Note" #3 on the last page of this document.

**May 15, 2018: Second revision**

Insignificant capitalization changes.
Practice 7A: Reorganized for clarity. One more row added to the beginning. Commas deleted.
Example 7.5-7: Math moved to begin on the second line and continue on the third.
7.6: Comment added.
BRF: Practice 7D: Added transcriber's note referring to notes at end of lesson.
See also "Shared Note" #4 and #5 on the last page of this document.

**June 25, 2018: Third revision**

Practice 7B (print): Period deleted from end of sentence ii.

**May 22, 2019: Fourth revision**

Text before Example 7.10-2: "Sha" changed to "Shah"
Example 7.18-1, subitem b (print copy only): period inserted at end of equation.
Example 7.18-7, item 3c (print copy only): "485" changed to "458".
Example 7.18-7 (BRF): spaces deleted before and after hyphen in Example label
Example 7.18-8, item 3c (print copy only): "485" changed to "458".
Practice 7C: Inserted a blank line before item #1, after the transcriber's note.
Practice 7F: "ar" in "n-ary" changed to be uncontracted (Nemeth context).

LESSON 8
July 24, 2017: First upload
February 1, 2018: First revision
Practice 8B, item 4 (print): Quotation mark deleted before the word "is".
8.6.1: Third mini-example removed.
Example 8.7-3: Comment added.
8.7.3: (print copy): Apostrophes changed to look like punctuation, not like prime signs.
8.10.4: Sentence moved from "is not used" paragraph to "must be used" paragraph; order of paragraphs switched.
Example 8.11-1 (braille): The word “and” added.
Example 8.11-2 (braille): Corrected spelling of the word “shown”.
8.11.2, second mini-example (braille): Corrected spelling of the word "obtuse".
8.11.3 (print): Code switch indicators deleted from the two isolated examples.
Example 8.16-1 (braille): Opening Nemeth Code indicator added following the word “anion”.
Practice 8D, item 6 (braille): Single-word switch indicator added to the word “or”.
Practice 8I (braille): Opening Nemeth Code indicators moved to follow the last word in each cell-5 heading; several extraneous punctuation marks and one extraneous code switch indicator deleted.
See also "Shared Note" #3 on the last page of this document.
May 15, 2018: Second revision
Example 8.3-7 Changed; comment removed.
See also "Shared Note" #4 and #5 on the last page of this document.
January 31, 2019: Third revision
Practice 8A, second paragraph (braille and simbraille): Dot 6 added to the sanserif indicator in the second and third instances.
Practice 8G, #4 (print): The two vector letters "v" changed to bold type.
Example 8.16-1 (braille and simbraille): Superscript corrected to 127.
May 22, 2019: Fourth revision
8.16, second sentence: cross-reference 8.9 changed to 8.10.
Example 8.24-1: Period inserted before closing TN symbol; space removed.
Example 8.25-4 (print copy only): Word "to" changed to "do".
Practice 8J, item 1, last line: Dot 2 in front of the numeral 6 changed to dot 5 (baseline indicator).

LESSON 9
February 1, 2018: First upload
May 15, 2018: First revision
Practice 9A: Note added to "Instructions" regarding end-of-sentence punctuation.
BRF: Practice 9B: Added transcriber's note referring to notes at end of lesson.
9.7.1: Description of last mini-example clarified.
See also "Shared Note" #4 and #5 on the last page of this document.
May 22, 2019: Second revision
Practice 9C: Directive inserted: "Treat "FRACTION REVIEW" as a centered heading."
Example 9.9-3 (print copy only): Period added to end the sentence.
Practice 9I: Directive inserted: "Treat "MULTIPLYING MIXED NUMBERS" as a centered heading."
Practice 9B, item B: Extra blank cell deleted after the word “Energy”.
Practice 9C: "FRACTION REVIEW" changed to a centered heading, followed by a blank line.
LESSON 10
February 1, 2018: First upload
May 15, 2018: First revision
BRF: Practices 10A, C: Added transcriber's note referring to notes at end of lesson.
10.2: Second sentence deleted.
BRF: 10.5: Opening switch indicator corrected. Examples changed to two columns to match print copy. Pagination changes throughout.
10.15: Second sentence repaired.
Third mini-example before 10.29: Stroke direction changed to be upper left to lower right.
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May 22, 2019: Second revision
Example 10.29-3: Misplaced carried numbers corrected in the print example.
10.34: Question box inserted regarding BANA ruling about opening switch indicator.
Example 10.37-1: Punctuation indicator inserted before period in identifier 2.
See also "Shared Note" #4 and #5 on the last page of this document.
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May 9, 2020: Third revision
10.34: Inserted "itemized" in the first sentence to read".... an itemized spatial problem ...
Example 10.27-2: "vertically" added to end of commentary.

LESSON 11
May 15, 2018: First upload
August 28, 2018: First revision
11.23.1: "as a square shape" changed to "as square shapes".
Practice 11G, Braille: same as above.
January 31, 2019: Second revision
Practice 11A (print): Several corrupted images corrected.
Practice 11E (print): Corrupted image of pencil icons corrected.
Practice 11E (braille and simbraille): Opening Nemeth Code indicator inserted before first keystroke indicator; Nemeth Code terminator inserted at the end of the third line of keystrokes; Second line of keystrokes: symbol for multiplication dot corrected.
May 9, 2020: Third revision
11.30: "general omission indicator " changed to " general omission symbol".

LESSON 12
May 15, 2018: First upload
August 28, 2018: First revision
Practice 12I, Instructions: Wording of standard statement changed to "Mathematical content is transcribed according to The Nemeth Braille Code for Mathematics and Science Notation, 1972 Revision, 2007-2015 Updates including the Guidance for Transcription Using the Nemeth Code within UEB Contexts."
Practice 12I, Braille: same as above.
May 9, 2020: Second revision
12.17.3: "Step-Number Format" narrative changed to reflect the possibility of print showing no numbers or column headings.
Example 12.17-1: Last item in commentary changed to fit on one print line.
Pagination issues corrected; some images improved.

LESSON 13  
May 15, 2018: First upload  
August 28, 2018: First revision  
13.1.2 Deleted the sentence "List Nemeth Code symbols under a separate cell-5 heading." Sample Special Symbols page changed to comply with new guidelines.  
May 22, 2019: Second revision  
13.7, sixth sentence: “identity” changed to “identify”.  
13.7.1: Added: the colon as a mathematical symbol  
13.7.2: Added: two forms of the "colon"  
May 9, 2020: Third revision  
Practice 13G, braille answer: Margins of the six spatial division problems changed to be displayed mathematical material, starting in cell 3, and showing three blank cells between symbols of neighboring arrangements.

LESSON 14  
June 25, 2018: First upload  
May 22, 2019: First revision  
Example 14.13-5, line 1: Corrected the word “To” (should not be contracted).

LESSON 15  
June 25, 2018: First upload  
May 22, 2019: First revision  
Challenge Problem (after Practice 15C): Inserted a second paragraph to describe the format. In the braille, inserted a UEB ellipsis before the opening Nemeth Code indicator; indented the entire arrangement two cells to the right, using proper displayed margins.  
Example 15.10-1, Practice 15C, and Practice 15D: Inserted a UEB ellipsis before the opening Nemeth Code indicator; indented the entire arrangement two cells to the right, using proper displayed margins.  
May 9, 2020: Second revision  
Example 15.11-3, line 8: Opening Nemeth Code indicator moved to the runover cell of the preceding text (cell 13). Added explanation of this placement to the commentary.

LESSON 16  
July 17, 2018: First upload  
May 22, 2019: First revision  
Example 16.5-1 line 4: Baseline indicator inserted before right enlarged brace.  
Challenge Problem #1: Text and provisional transcription changed.  
16.16.4: Wording changed in this paragraph.

LESSON 17  
July 17, 2018: First upload  
May 22, 2019: First revision  
Example 17.9-2 (print copy only): “Triangle 3” moved left one cell to begin in cell 7.  
17.12.3: Several improvements made to the text. An additional example given.  
Example 17.12-1, first column heading: Grade one indicator removed from letter "A" in "Town A".  
Example 17.12-2, bulleted list: Margins adjusted to 1-3.  
May 9, 2020: Second revision  
Example 17.6-4: Nemeth Code terminator moved to a new line; bottom box line changed to a full line of dots 1245. Commentary adjusted.
Example 17.6-5: Opening Nemeth Code indicator moved to the line preceding the box; top box line changed to a full line of dots 2356. Commentary adjusted.
Practice 17C: Nemeth Code terminator moved to a new line; bottom box line changed to a full line of dots 1245. Commentary adjusted.

LESSON 18
July 17, 2018: First upload
August 28, 2018: First revision
  18.4.1 Special Symbols Page: Revised to comply with newest guidelines.
  18.4.2 Transcriber’s Notes Page: Revised to comply with newest guidelines.
  Practice 18A: Special symbols page and transcriber’s notes page revised to comply with newest guidelines.
May 9, 2020: Second revision
  18.4.1, second paragraph: "switching" changed to "switch"

APPENDICES

APPENDIX A
May 15, 2018: First upload (partial)
June 25, 2018: Second upload (complete) –
  Corrections made to readings 3, 5, 8, and 11 (print) and readings 8, 9, 11, 12, and 13 (braille).

APPENDIX B
May 15, 2018: First upload

APPENDIX C
July 24, 2017: First upload (through Lesson 8)
February 1, 2018: Second upload (through Lesson 10)
May 15, 2018: Final upload (all lessons)
May 22, 2019 revision
  Switch Indicators ... with Spatial Arrangements: Fifth sentence changed to say "If there is not room on the line with the preceding text, the opening Nemeth Code indicator is placed in cell 1 on a line by itself." Sixth sentence deleted.
July 8, 2019 revision
  Switch Indicators ... with Spatial Arrangements: Fifth sentence changed again to make a distinction between itemized and unitemized formats.
SHARED NOTES

Note #1 (Lessons 1-4)  April 25, 2017
Added the revision date (footer in PDF; on title page in BRF).
BRF: Added a braille page number to even-numbered pages; added a running head; deleted "brief contents".

Note #2 (Lessons 1-6)  July 24, 2017
BRF: title page: Lines 17-18 changed to say "Transcribed 2017 into Unified English Braille and Nemeth Braille by Lindy Walton"; inserted numeric indicator on line 24; Special Symbols page: added symbols according to Braille Formats Appendix G; Transcriber's Notes page: inserted capitals indicator for letter S in TRANSCRIBER'S; added a paragraph about the dash being omitted from page numbers; page 1: inserted full book title on lines 1-4; page 1: added statement to recheck the NFB website periodically for updated file.
PDF: page 1: Added statement to recheck the NFB website periodically for updated file; brief contents: moved FORMAT list to be a right column (if applicable).

Note #3 (Lessons 1-8)  February 1, 2018
Braille examples changed to a 3-1 paragraph style in order to avoid misunderstanding. Sometimes this required slight changes in wording.
PDF: "Answers to Practice Material" section forced to start on a page front.

Note #4 (Lessons 1-10)  May 15, 2018
Throughout: The name of the BANA Mathematics Committee changed to "Nemeth Code Technical Committee".
Throughout: The name of the BANA "Guidance" document changed to "Guidance for Transcription Using the Nemeth Code within UEB Contexts".

Note #5 (Lessons 2-10)  May 15, 2018
BRF: page t4 (Transcriber's Notes page): Added paragraph about use of the Nemeth Code; changed the last paragraph to have a paragraph heading.