LESSON 2

Read about this PROVISIONAL EDITION in the front matter to this book.
Check the NFB website periodically for updates to this lesson.

- *INTRODUCTION TO CODE SWITCHING*
  - *Placement of the Code Switch Indicators*
- *THE HYPHEN AND THE DASH*
- *SIGNS OF OMISSION*
- *INTRODUCTION TO IDENTIFIERS*

FORMAT

Keep Together—Mathematical Expression
Margins for Narrative (3-1)
Margins for Itemized Material with No Subdivisions (1-3)
FORMAT SUMMARY #1

INTRODUCTION TO CODE SWITCHING

2.1 A Complete Transcription: The base code used in a complete transcription is Unified English Braille ("UEB"). When mathematical content occurs anywhere in the transcription, the non-technical notation follows UEB rules while the technical notation follows the rules of the Nemeth Code. The reader will assume he is reading Unified English Braille unless signaled otherwise by the use of a code switch indicator.

Opening Nemeth Code Indicator	⠸⠩	*(followed by a space)*
Nemeth Code Terminator	⠸⠱	*(preceded by a space)*

These symbols must be listed on the Special Symbols page in the transcriber-generated portion of each volume. See ***Lesson 18*** *for further details.*

The material between the opening Nemeth Code indicator and the Nemeth Code terminator follows Nemeth Code rules. UEB symbols are not used inside of the Nemeth Code switches. The space required after the opening Nemeth Code indicator and before the Nemeth Code terminator does not represent a space in print.

The opening Nemeth Code indicator and the Nemeth Code terminator may also be referred to as "code switch indicators" or "switches".

2.2 Use of the Code Switch Indicators: Switch to Nemeth Code when mathematical material or technical notation is encountered.

Example 2.2-1 $2+2=22$ is Grampa's favorite joke.

⠸⠩ ⠼⠆⠬⠆ ⠨⠅ ⠼⠆⠆ ⠸⠱ ⠊⠎ ⠠⠛⠗⠁⠍⠏⠁⠄⠎
⠋⠁⠧⠕⠗⠊⠞⠑ ⠚⠕⠅⠑⠲

Throughout this lesson the code switch indicators are highlighted.

Switch to Nemeth Code for fragmentary expressions. The isolated mathematical symbols in the next example must use Nemeth Code symbols even though UEB symbols exist for these mathematical signs.

Example 2.2-2 Use either the + or the × symbol to make the statements TRUE.

⠀⠀⠠⠥⠎⠑ ⠑⠊ ⠮ ⠸⠩ ⠬ ⠸⠱ ⠕⠗ ⠮ ⠸⠩ ⠈⠡ ⠸⠱
⠎⠽⠍⠃⠕⠇ ⠞⠕ ⠍⠁⠅⠑ ⠮ ⠌⠁⠞⠑⠰⠞⠎ ⠠⠠⠞⠗⠥⠑⠲

Instructions: Treat PRACTICE 2A as a centered heading. Begin each sentence in cell 3 with any runovers beginning in cell 1.

PRACTICE 2A

What does 16 + 4 + 100 equal?

If 10 × 10 × 10 = 1,000 what does 10 × 10 × 10 × 10 equal?

Does 5 ÷ 2 name a whole number?

% ("percent") means parts per hundred; ‰ ("per mille") means parts per thousand.

2.3 Which Code? Recall from **Lesson 1** that page numbers and labels to figures, tables, sections, etc. are brailled in UEB. Examples are shown in **1.3.1**. Here is another example that does not require code switching.

Example 2.3-1 To prepare for tomorrow's quiz, review Chapters 3-4 and Table 3.1.7 on page T14.

⠀⠀⠠⠞⠕ ⠏⠗⠑⠏⠜⠑ ⠿ ⠞⠍⠄⠎ ⠟⠥⠊⠵⠂ ⠗⠑⠧⠊⠑⠺
⠠⠡⠁⠏⠞⠻⠎ ⠼⠉⠤⠼⠙ ⠯ ⠠⠞⠁⠃⠇⠑ ⠼⠉⠲⠁⠲⠛ ⠕⠝ ⠏⠁⠛⠑
⠠⠞⠼⠁⠙⠲

To avoid excessive code switching, freestanding numbers including numbers with internal commas or with ordinal endings may be brailled in UEB. This applies to incidental numbers encountered in narrative ...

Example 2.3-2 A scale model of the *Nautilus* as depicted in the 1954 Disney film *20,000 Leagues Under the Sea* is shown in the 1st drawing in §5.7.

⠀⠀⠠⠁ ⠎⠉⠁⠇⠑ ⠍⠕⠙⠑⠇ ⠷ ⠮ ⠨⠂⠠⠝⠁⠥⠞⠊⠇⠥⠎ ⠵
⠙⠑⠏⠊⠉⠞⠫ ⠔ ⠮ ⠼⠁⠊⠑⠙ ⠠⠲⠝⠑⠽ ⠋⠊⠇⠍ ⠨⠶⠼⠃⠚⠂⠚⠚⠚
⠠⠇⠂⠛⠥⠑⠎ ⠠⠐⠥ ⠮ ⠠⠎⠑⠁⠨⠄ ⠊⠎ ⠩⠪⠝ ⠔ ⠮ ⠼⠁⠎⠞
⠙⠗⠁⠺⠬ ⠔ ⠘⠎⠼⠑⠲⠛⠲

... as well as to freestanding numbers in a math problem. When the surrounding text is UEB, there is no need to switch to Nemeth Code for such numbers.

Example 2.3-3 A bag contains 10 marbles: 2 purple, 4 orange, 1 yellow, and 3 green.

⠠⠁ ⠃⠁⠛ ⠒⠞⠁⠔⠎ ⠼⠁⠚ ⠍⠜⠃⠇⠑⠎⠒ ⠼⠃ ⠏⠥⠗⠏⠇⠑⠂
⠼⠙ ⠕⠗⠁⠝⠛⠑⠂ ⠼⠁ ⠽⠑⠇⠇⠪⠂ ⠯ ⠼⠉ ⠛⠗⠑⠢⠲

Example 2.3-4 If the bag contains 1,000 marbles, what are the chances of drawing 4 yellow marbles on the 1st draw of 12 marbles?

⠠⠊⠋ ⠮ ⠃⠁⠛ ⠒⠞⠁⠔⠎ ⠼⠁⠂⠚⠚⠚ ⠍⠜⠃⠇⠑⠎⠂ ⠱⠁⠞
⠜⠑ ⠮ ⠡⠨⠑⠎ ⠷ ⠙⠗⠁⠺⠬ ⠼⠙ ⠽⠑⠇⠇⠪ ⠍⠜⠃⠇⠑⠎ ⠕⠝ ⠮
⠼⠁⠎⠞ ⠙⠗⠁⠺ ⠷ ⠼⠁⠃ ⠍⠜⠃⠇⠑⠎⠦

When such numbers are touching literary punctuation such as quotes or parentheses, they are still considered to be "freestanding" and may be brailled in UEB.

Example 2.3-5 Is the "5" in the number "5093" in the hundreds place (500) or in the thousands place (5,000)?

⠠⠊⠎ ⠮ ⠦⠼⠑⠴ ⠔ ⠮ ⠝⠥⠍⠃⠻ ⠦⠼⠑⠚⠊⠉⠴ ⠔ ⠮
⠓⠥⠝⠙⠗⠫⠎ ⠏⠇⠁⠉⠑ ⠐⠣⠼⠑⠚⠚⠐⠜ ⠕⠗ ⠔ ⠮ ⠹⠳⠎⠯⠎
⠏⠇⠁⠉⠑ ⠐⠣⠼⠑⠂⠚⠚⠚⠐⠜⠦

In the next example, a switch to Nemeth Code is required for the multiplication symbol (see section 2.2, above). The numbers associated with the symbol are also brailled in Nemeth Code.

Example 2.3-6 How many cans of paint does Rosie need to paint her 10×12 foot bedroom?

⠠⠓⠪ ⠸⠍ ⠉⠁⠝⠎ ⠷ ⠏⠁⠔⠞ ⠙⠕⠑⠎ ⠠⠗⠕⠎⠊⠑ ⠝⠑⠫
⠞⠕ ⠏⠁⠔⠞ ⠓⠻ ⠸⠩ ⠼⠂⠴⠈⠡⠂⠆ ⠸⠱ ⠋⠕⠕⠞ ⠃⠫⠗⠕⠕⠍⠦

2.4 Placement of Literary Punctuation: When mathematical notation ends a sentence or a phrase and Nemeth Code is terminating, first determine the function of the punctuation. If the punctuation applies to the structure of the sentence and is not actually part of the math expression, braille the Nemeth Code terminator first. The punctuation mark then will follow the termination indicator. There is no space between the terminator and the punctuation mark.

Example 2.4-1 931684572 can be divided into groups of three digits each: 931 684 572.

⠼⠊⠉⠁⠋⠓⠙⠑⠛⠃ ⠉ ⠆ ⠙⠊⠧⠊⠙⠫ ⠔⠞⠕ ⠛⠗⠳⠏⠎ ⠷
⠹⠗⠑⠑ ⠙⠊⠛⠊⠞⠎ ⠑⠁⠡⠒ ⠸⠩ ⠼⠔⠒⠂ ⠖⠦⠲ ⠢⠶⠆ ⠸⠱⠲

The first numeral does not require a switch to Nemeth Code because it is a freestanding, unmodified numeral. The second numeral, however, requires a switch because the UEB numeric space indicator is not used in a Nemeth Code transcription. Review section ***1.4.1.***

Instructions: Continue to center the heading and begin each problem in cell 3 with runovers in cell 1.

PRACTICE 2B

If $47 - 41 > 1$, do you suppose that $41 - 47 < 1$? Why or why not?

If $5 + 10$ equals 15, what does $10 + 5$ equal? Explain.

FORMAT

2.5 ***Keep Together*—General Principle Regarding Mathematical Expressions:** A mathematical expression that will fit on one braille line within the current margins must not be divided between lines. The entire expression is brought down to the next line.

Example 2.5-1 Catherine says she can prove that $0.999 = 1$ but I need convincing.

⠀⠀⠠⠉⠁⠮⠗⠔⠑⠀⠎⠁⠽⠎⠀⠩⠑⠀⠉⠀⠏⠗⠕⠧⠑⠀⠞⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀
⠸⠩⠀⠼⠴⠨⠔⠔⠔⠀⠨⠅⠀⠼⠂⠀⠸⠱⠀⠃⠀⠠⠊⠀⠝⠑⠫⠀⠒⠧⠔⠉⠬⠲

Items to the left and right of a comparison symbol, along with the symbol, constitute one "mathematical expression."

Placement of the Switch Indicators

2.5.1 Keep Together If Possible: Within a paragraph, the switch indicators should appear on the same line as the expression if the mathematical expression and the two indicators will fit on one braille line within the current margins. In the previous example as well as the next one a new line is forced to begin with the opening Nemeth Code indicator even though the indicator could fit on the previous line.

Example 2.5-2 The final term can be expressed as $2 \times 100 + 1$ in this series.

⠀⠀⠠⠮⠀⠋⠔⠁⠇⠀⠞⠻⠍⠀⠉⠀⠆⠀⠑⠭⠏⠗⠑⠎⠎⠫⠀⠵⠀⠀⠀⠀⠀⠀⠀⠀⠀
⠸⠩⠀⠼⠆⠈⠡⠂⠴⠴⠬⠂⠀⠸⠱⠀⠔⠀⠹⠀⠎⠻⠊⠑⠎⠲

2.5.1.a If two or more math expressions are brailled between the same code switch indicators, the line may wrap at the space between the expressions even if the entire Nemeth Code portion could fit on one line.

Example 2.5-3 Geoff and his friends collected the following donations during Trick-Or-Treat for UNICEF: $9.43, 95¢, $16.58, $24.15, and one plastic spider ring.

```
  ⠠⠛⠑⠷⠋ ⠯ ⠦ ⠋⠗⠎ ⠉⠕⠇⠇⠑⠉⠞⠫ ⠮ ⠋⠕⠇⠇⠪⠬
⠙⠕⠝⠁⠰⠝⠎ ⠙⠥⠗⠬ ⠠⠞⠗⠊⠉⠅⠤⠠⠕⠗⠤⠠⠞⠗⠂⠞ ⠿
⠠⠠⠥⠝⠊⠉⠑⠋⠒ ⠸⠩ ⠈⠎⠔⠨⠲⠒⠠ ⠼⠔⠢⠈⠉⠠ ⠈⠎⠂⠖⠨⠢⠦⠠
⠈⠎⠆⠲⠨⠂⠢⠠ ⠸⠱ ⠯ ⠐⠕ ⠏⠇⠁⠌⠊⠉ ⠎⠏⠊⠙⠻ ⠗⠬⠲
```

Even so, a switch indicator should not stand alone on a line if there is room for it to fall on the line with the math expression to which it applies.

Example 2.5-4 Jill and her friends collected the following donations during trick-or-treating: $18.21, 37¢, $11.87, $25.25, and one movie coupon.

```
  ⠠⠚⠊⠇⠇ ⠯ ⠓⠻ ⠋⠗⠎ ⠉⠕⠇⠇⠑⠉⠞⠫ ⠮ ⠋⠕⠇⠇⠪⠬
⠙⠕⠝⠁⠰⠝⠎ ⠙⠥⠗⠬ ⠞⠗⠊⠉⠅⠤⠕⠗⠤⠞⠗⠂⠞⠬⠒ ⠀⠀⠀⠀⠀⠀⠀⠀⠀
⠸⠩ ⠈⠎⠂⠦⠨⠆⠂⠠ ⠼⠒⠶⠈⠉⠠ ⠈⠎⠂⠂⠨⠦⠶⠠ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀
⠈⠎⠆⠢⠨⠆⠢⠠ ⠸⠱ ⠯ ⠐⠕ ⠍⠕⠧⠊⠑ ⠉⠳⠏⠕⠝⠲
```

2.5.2 A Switch Indicator May Stand Alone on a Line if Unavoidable: If a math expression will fit on one line but there is not room for one or both of the switch indicators, one or both switch indicators may stand alone on a line. Keeping the mathematical expression intact on one line is the priority. Several layouts are illustrated below.

Example 2.5-5 Multiplication can be expressed as addition. For example, 12×11 is the same as eleven twelves, or $12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12$.

```
  ⠠⠍⠥⠇⠞⠊⠏⠇⠊⠉⠁⠰⠝ ⠉ ⠆ ⠑⠭⠏⠗⠑⠎⠎⠫ ⠵ ⠁⠙⠙⠊⠰⠝⠲
⠠⠿ ⠑⠭⠁⠍⠏⠇⠑⠂ ⠸⠩ ⠼⠂⠆⠈⠡⠂⠂ ⠸⠱ ⠊⠎ ⠮ ⠎⠁⠍⠑ ⠵
⠑⠇⠑⠧⠢ ⠞⠺⠑⠇⠧⠑⠎⠂ ⠕⠗ ⠸⠩
⠼⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆⠬⠂⠆ ⠸⠱⠲
```

This opening Nemeth Code indicator falls on the line before the long expression.

Example 2.5-6 Similarly, 13×11 is the same as $13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13$.

⠠⠎⠊⠍⠊⠇⠜⠇⠽⠂ ⠸⠩ ⠼⠂⠒⠈⠡⠂⠂ ⠸⠱ ⠊⠎ ⠮ ⠎⠁⠍⠑ ⠵

⠸⠩ ⠼⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒⠬⠂⠒

⠸⠱⠲

This Nemeth Code terminator (along with the related punctuation) falls on the line after the long expression.

Example 2.5-7 Reducing to prime factors, $126 = 2 \cdot 63 = 2 \cdot 3 \cdot 21 = 2 \cdot 3 \cdot 3 \cdot 7$.

⠠⠗⠫⠥⠉⠬ ⠞⠕ ⠏⠗⠊⠍⠑ ⠋⠁⠉⠞⠕⠗⠎⠂ ⠸⠩

⠼⠂⠆⠖ ⠨⠅ ⠼⠆⠡⠖⠒ ⠨⠅ ⠼⠆⠡⠒⠡⠆⠂ ⠨⠅ ⠼⠆⠡⠒⠡⠒⠡⠶

⠸⠱⠲

Because the expression takes up the full available line width, both the opening Nemeth Code indicator and the Nemeth Code terminator fall on separate lines.

Note: A sign of comparison links the symbols on the left side of the comparison sign with the symbols on the right side of the comparison sign and so is considered to be one mathematical expression. The math portion in the example above is one expression, not four, and should not be divided between lines if it will fit on one line within the current margins.

2.5.3 Switch Indicators at Page Turns: If the switch to Nemeth Code occurs at a braille page turn, keep the opening switch indicator on the same braille page as the mathematical material to which it applies. For instance, using the same example:

Example 2.5-7, cont.

Reducing to prime factors, $126 = 2 \cdot 63 = 2 \cdot 3 \cdot 21 = 2 \cdot 3 \cdot 3 \cdot 7$.

25 ⠠⠗⠫⠥⠉⠬ ⠞⠕ ⠏⠗⠊⠍⠑ ⠋⠁⠉⠞⠕⠗⠎⠂ ⠼⠁⠁

— —

1 ⠸⠩ ⠃⠼⠙⠙

2 ⠼⠂⠆⠖ ⠨⠅ ⠼⠆⠡⠖⠒ ⠨⠅ ⠼⠆⠡⠒⠡⠆⠂ ⠨⠅ ⠼⠆⠡⠒⠡⠒⠡⠶

3 ⠸⠱⠲

Unless it is impossible to arrange, both the opening Nemeth Code indicator and the Nemeth Code terminator must appear on the same page as the expression to which they apply. In the example above, the following layout would be applied if the braille page ended before the terminator could be brailled.

24 ⠠⠗⠫⠥⠉⠬ ⠞⠕ ⠏⠗⠊⠍⠑ ⠋⠁⠉⠞⠕⠗⠎⠂

25 ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠼⠁⠁

— —

⠸⠩ ⠃⠼⠙⠙
⠼⠂⠆⠖ ⠨⠅ ⠼⠆⠡⠖⠒ ⠨⠅ ⠼⠆⠡⠒⠡⠆⠂ ⠨⠅ ⠼⠆⠡⠒⠡⠒⠡⠶
⠸⠱⠲

Instructions: Begin each paragraph in cell 3 with runovers in cell 1.

PRACTICE 2C

How many squares can you find on an 8 × 8 checkerboard? (*Hint:* There are more than 65 squares.) First determine how many 1 × 1 squares, then how many 2 × 2 squares, and so on, you can find.

12×11 is also the same as twelve elevens, or 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11.

2.6 Consistency with Mathematical Symbols: Although UEB provides symbols for math notation and measurement, the transcriber's objective is to *maintain consistency in the appearance of the mathematical symbols throughout the transcription*. A symbol that is used in mathematical context is brailled in Nemeth Code, even in narrative context. This includes the symbols learned in **Lesson 1**—signs of operation, signs of comparison, monetary, percent, and prime signs.

This example uses Nemeth Code symbols for prime signs representing minutes and seconds of arc. A switch to Nemeth Code is required.

Example 2.6-1 Convert 67'44'' to decimal degree form.

⠠⠒⠧⠻⠞ ⠸⠩ ⠼⠖⠶⠄⠲⠲⠄⠄ ⠸⠱ ⠞⠕ ⠙⠑⠉⠊⠍⠁⠇
⠙⠑⠛⠗⠑⠑ ⠿⠍⠲

The next example uses the Nemeth Code decimal point in a mathematical numeral. A switch to Nemeth Code is required.

Example 2.6-2 1.6180339887 is known as the Golden Number, **Phi**.

⠸⠩ ⠼⠂⠨⠖⠂⠦⠴⠒⠒⠔⠦⠦⠶ ⠸⠱ ⠊⠎ ⠐⠅⠝ ⠵ ⠮
⠠⠛⠕⠇⠙⠢ ⠠⠝⠥⠍⠃⠻⠂ ⠘⠂⠠⠏⠓⠊⠲

PRACTICE 2D

With a 7% sales tax added, how much will a $6 bus ticket actually cost?

Percent to Decimal: To convert, divide the percent by 100: 78.6% = 78.6 ÷ 100 = 0.786.

Julio's lot measures 56' wide and 100' deep. The garden shed is 20'8'' back from the street.

THE HYPHEN AND THE DASH

2.7 The Hyphen and the Dash As Punctuation: As punctuation marks, the hyphen and the dash will most often be found in literary context, in which case the UEB symbols and rules are applied. In mathematical context, Nemeth Code symbols are used. The hyphen is the same in either code. If a short dash occurs in mathematical context, it is brailled as shown below.

Hyphen	**-**	⠤
Dash (short)	**–**	⠤⠤

2.7.1 A Hyphen May Divide a Long Numeral: If a long numeral cannot be contained on one braille line it is divided after a comma (if a comma is present) and a hyphen is inserted. *The line continuation indicator of UEB is not used in Nemeth Code.* When a numeral is divided between braille lines the numeric indicator must be used before the first digit of the numeral on the next line.

Example 2.7-1 One decillion dollars can be written out as $1,000,000,000,000,000,000,000,000,000,000,000

⠠⠐⠕ ⠙⠑⠉⠊⠇⠇⠊⠕⠝ ⠙⠕⠇⠇⠜⠎ ⠉ ⠆ ⠺⠗⠊⠞⠞⠢ ⠳ ⠵
⠸⠩ ⠈⠎⠂⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠤
⠼⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴⠠⠴⠴⠴ ⠸⠱

Reminder: Because of the dollar sign, the number must be brailled in Nemeth Code. The opening switch indicator is placed on the same line as the expression since the whole number won't fit on one line.

2.7.1.a: If the long numeral does not contain a comma, the hyphen may be inserted after any digit.

Example 2.7-2 Name the Greek irrational number that begins as 3.14159265358979323846264338327950288419716939; then write the next five digits.

⠠⠐⠝ ⠮ ⠠⠛⠗⠑⠑⠅ ⠊⠗⠗⠁⠰⠝⠁⠇ ⠝⠥⠍⠃⠻ ⠞ ⠆⠛⠔⠎ ⠵
⠸⠩ ⠼⠒⠨⠂⠲⠂⠢⠔⠆⠖⠢⠒⠢⠦⠔⠶⠔⠒⠆⠒⠦⠲⠖⠆⠖⠲⠒⠒⠦⠒⠆⠶⠔⠢⠤
⠼⠴⠆⠦⠦⠲⠂⠔⠶⠂⠖⠔⠒⠔ ⠸⠱⠆ ⠮⠝ ⠺⠗⠊⠞⠑ ⠮ ⠝⠑⠭⠞
⠋⠊⠧⠑ ⠙⠊⠛⠊⠞⠎⠲

Because the math number contains a decimal point it must be brailled in Nemeth Code. The semicolon applies to the sentence structure and is placed after the Nemeth Code terminator.

2.7.2 A Hyphen May Connect Numerals: If connected numerals are shown in mathematical context, the numeric indicator is not used after a hyphen connecting them.

Example *2.7-3* Plants thrive in soils that measure from 5.5-7.0 on the pH scale.

⠠⠏⠇⠁⠝⠞⠎ ⠹⠗⠊⠧⠑ ⠔ ⠎⠕⠊⠇⠎ ⠞ ⠍⠂⠎⠥⠗⠑ ⠋
⠸⠩ ⠼⠢⠨⠢⠤⠶⠨⠴ ⠸⠱ ⠕⠝ ⠮ ⠏⠠⠓ ⠎⠉⠁⠇⠑⠲

Because the math numbers contain a decimal point they must be brailled in Nemeth Code.

2.7.2.a UEB Context: Numerals connected by hyphens such as dates, page number ranges, chapter or section ranges, etc. are not mathematical and therefore the rules of UEB are followed.

Example *2.7-4* Your assignment for 3-6-17 is to read Sections 5.4-5.5 on pages 72-86.

⠠⠽⠗ ⠁⠎⠎⠊⠛⠝⠰⠞ ⠿ ⠼⠉⠤⠼⠋⠤⠼⠁⠛ ⠊⠎ ⠞⠕ ⠗⠂⠙
⠠⠎⠑⠉⠰⠝⠎ ⠼⠑⠲⠙⠤⠼⠑⠲⠑ ⠕⠝ ⠏⠁⠛⠑⠎ ⠼⠛⠃⠤⠼⠓⠋⠲

2.7.3 A Dash Separates: In mathematical context, the Nemeth short dash is used to represent a dash used as a mark of punctuation. A numeric indicator is required following a dash even though that number may not be preceded by a space.

The BANA Nemeth Code Technical Committee is discussing details regarding the spacing of the dash in Nemeth Code. This section will be completed after decisions are made.

Example 2.7-4 The final cost was $47,689—2.6% more than advertised.

⠠⠮ ⠋⠔⠁⠇ ⠉⠕⠌ ⠴ ⠸⠩ ⠈⠎⠲⠶⠠⠖⠦⠔⠤⠤⠼⠆⠨⠖⠈⠴ ⠸⠱
⠍ ⠹⠁⠝ ⠁⠙⠧⠻⠞⠊⠎⠫⠲

As punctuation, a dash implies a pause or a break in thought.

A dash may begin or end a line but the sign itself must not be divided.

Example 2.7-5 Dom carefully recited the last five facts from the *sevens* times table: $7 \times 6 = 42$— $7 \times 7 = 49$— $7 \times 8 = 56$— $7 \times 9 = 63$— $7 \times 10 = 70$—Phew!

⠠⠙⠕⠍ ⠉⠜⠑⠰⠇⠇⠽ ⠗⠑⠉⠊⠞⠫ ⠮ ⠇⠁⠌ ⠋⠊⠧⠑ ⠋⠁⠉⠞⠎
⠋ ⠮ ⠨⠂⠎⠑⠧⠢⠎ ⠐⠞⠎ ⠞⠁⠃⠇⠑⠒ ⠸⠩ ⠼⠶⠈⠡⠖ ⠨⠅ ⠼⠲⠆
⠤⠤⠼⠶⠈⠡⠶ ⠨⠅ ⠼⠲⠔⠤⠤⠼⠶⠈⠡⠦ ⠨⠅ ⠼⠢⠖⠤⠤
⠼⠶⠈⠡⠔ ⠨⠅ ⠼⠖⠒⠤⠤⠼⠶⠈⠡⠂⠴ ⠨⠅ ⠼⠶⠴ ⠸⠱⠠⠤⠠⠏⠓⠑⠺⠖

Notice that the UEB dash is used after the Nemeth Code terminator—unspaced, as in print, according to UEB rules. The Nemeth Code dash is used in the math.

2.7.4 Hyphen, Dash, or Minus Sign? Read carefully to determine whether a symbol is a hyphen, a dash or a minus/negative sign. A space must come between a hyphen and a minus sign or between a dash and a minus sign in order to distinguish the similar constructions.

Example 2.7-6 Moving from right-to-left on the number line, Carl spoke carefully— 0— -5— -10— -15—

⠠⠍⠕⠧⠬ ⠋ ⠐⠗⠤⠞⠕⠤⠇⠑⠋⠞ ⠕⠝ ⠮ ⠝⠥⠍⠃⠻ ⠇⠔⠑⠂
⠠⠉⠜⠇ ⠎⠏⠕⠅⠑ ⠉⠜⠑⠰⠇⠇⠽⠠⠤ ⠸⠩ ⠼⠴⠤⠤ ⠤⠼⠢⠤⠤
⠤⠼⠂⠴⠤⠤ ⠤⠼⠂⠢⠤⠤ ⠸⠱

The UEB dash is used in the narrative; the Nemeth Code dash is used in the math. Although the math will fit all together on one line, it is four expressions, not just one, so the fullest available extent of the line is used.

Example 2.7-7 In degrees Celsius, Earth's temperature ranges from 58.2- –99.7.

⠠⠔ ⠙⠑⠛⠗⠑⠑⠎ ⠠⠉⠑⠇⠎⠊⠥⠎⠂ ⠠⠑⠜⠹⠄⠎
⠞⠑⠍⠏⠻⠁⠞⠥⠗⠑ ⠗⠁⠝⠛⠑⠎ ⠋
⠸⠩ ⠼⠢⠦⠨⠆⠤ ⠤⠼⠔⠔⠨⠶ ⠸⠱⠲

Because a space must be inserted between the hyphen and the minus sign, a numeric indicator is required for –99.

PRACTICE 2E

Represent cents as decimals—$0.89—not like this—89¢.

Marcus' answer was 37¢—38¢ is the correct change.

In degrees Fahrenheit, Earth's temperature ranges from –126-136.

Expressed in seconds, the shortest meaningful interval of time (Planck Time) contains 46 decimal places: 0.0000000000000000000000000000000000000000000054 !

The BANA Nemeth Code Technical Committee is discussing details regarding the ellipsis and the long dash. The next section may change in the future.

SIGNS OF OMISSION

2.8 General Use of Signs of Omission: In print, omission of mathematical or literary material may be shown by dots, a dash, a blank space, a question mark, or a combination of these or other signs devised by the author. Unless otherwise stated, the omission symbol used in braille should correspond to the print sign.

2.9 Ellipsis: A dot or series of dots in print representing an omission is an ellipsis. In literary context, the UEB ellipsis is used. In mathematical context, the ellipsis of the Nemeth Code is brailled.

Ellipsis	. . .	⠄⠄⠄

Example 2.9-1 What is the secret clue in this series? 5.0, 8.2, 11.4, 14.6, ...

⠠⠱⠁⠞ ⠊⠎ ⠮ ⠎⠑⠉⠗⠑⠞ ⠉⠇⠥⠑ ⠔ ⠹ ⠎⠻⠊⠑⠎⠦
⠸⠩ ⠼⠢⠨⠴⠠ ⠼⠦⠨⠆⠠ ⠼⠂⠂⠨⠲⠠ ⠼⠂⠲⠨⠖⠠ ⠄⠄⠄ ⠸⠱

The ellipsis represents further numbers in the series. Nemeth Code is used because the series requires the use of Nemeth Code for the decimals.

In literary context the UEB ellipsis is used.

Example 2.9-2 Marissa counted by 4s: 4, 8, 12, 16, ...

⠠⠍⠜⠊⠎⠎⠁ ⠉⠨⠞⠫ ⠃⠽ ⠼⠙⠎⠒ ⠼⠙⠂ ⠼⠓⠂ ⠼⠁⠃⠂
⠼⠁⠋⠂ ⠲⠲⠲

Even though this ellipsis represents missing numbers, because the freestanding numerals do not require a code switch, a UEB ellipsis is brailled.

2.10 Long Dash: When a dash is used to denote an omission in print, within mathematical context the Nemeth braille long dash is used.

Long Dash ______ ⠤⠤⠤⠤

Example 2.10-1 $79 \times 542 = \underline{\qquad}$

⠸⠩ ⠼⠶⠔⠈⠡⠢⠲⠆ ⠨⠅ ⠤⠤⠤⠤ ⠸⠱

In literary context the UEB underscore is used.

Example 2.10-2 Two and ___ are ten.

⠠⠞⠺⠕ ⠯ ⠨⠤ ⠜⠑ ⠞⠢⠲

2.11 General Omission Symbol: When an omission in print is represented within switches by a question mark or by a blank space, the general omission symbol is brailled. The printed question mark can be standing alone or be shown in combination with hyphens or dashes.

General Omission Symbol ⠿

Example 2.11-1 $92 \div 2 = ?$ $92 \div 2 = -?-$ $92 \div 2 =$ $92 \div 2 = \underline{\;\;?\;\;}$

All four examples above are brailled as follows:

⠸⠩ ⠼⠔⠆⠨⠌⠆ ⠨⠅ ⠿ ⠸⠱

The general omission symbol follows the spacing rules of the material which it represents.

Example 2.11-2 $6 + ? = 15$

⠸⠩ ⠼⠖⠬⠿ ⠨⠅ ⠼⠂⠢ ⠸⠱

The omitted digit is unspaced from the plus sign and spaced from the equals sign.

Example 2.11-3 $1{,}5?4 + 200 = 1{,}734$

⠸⠩ ⠼⠂⠠⠢⠿⠲⠬⠆⠴⠴ ⠨⠅ ⠼⠂⠠⠶⠒⠲ ⠸⠱

The omitted digit in the tens place is unspaced from the digits in the hundreds place and the ones place.

Example 2.11-4 Greater than or less than? 24 ÷ 3 ? 24 ÷ 4

⠠⠛⠗⠞⠻ ⠹⠁⠝ ⠕⠗ ⠇⠑⠎⠎ ⠹⠁⠝⠦
⠸⠩ ⠼⠆⠲⠨⠌⠒ ⠿ ⠼⠆⠲⠨⠌⠲ ⠸⠱

In the example above, the omitted comparison sign is spaced according to the rules. This is one mathematical expression and so it is forced to stay together on one line.

The number of general omission symbols used in braille must correspond to the number of omission signs used in print.

Example 2.11-5 678 × 27 = ? ? ? ? ?

⠸⠩ ⠼⠖⠶⠦⠈⠡⠆⠶ ⠨⠅ ⠿⠿⠿⠿⠿ ⠸⠱

A 5-digit answer is implied by showing five omission signs.

2.12 Other Omission Symbols: Omissions are frequently shown in other ways besides a blank space, a question mark, a dash, or an ellipsis. Shape symbols used to show omissions (such as a square or a circle) are discussed in a later lesson. If the omission sign used in print has no braille equivalent in the code, the sign may be represented by a devised braille symbol or by a drawing. Devised symbols are discussed in a later lesson.

2.13 Spacing of the Ellipsis and Long Dash: The ellipsis and the long dash are preceded and followed by a space in most circumstances, even when next to an operation sign. The print copy may or may not show a space but to avoid misreading the ellipsis or the long dash as other math symbols Nemeth Code spacing rules must be followed.

Example 2.13-1 There are many ways to write "10". Here are just a few: ____ + 5, ____ − 3, 2 × ____, 50 ÷ ____.

⠠⠐⠮ ⠜⠑ ⠸⠍ ⠺⠁⠽⠎ ⠞⠕ ⠺⠗⠊⠞⠑ ⠦⠼⠁⠚⠴⠲ ⠠⠐⠓
⠜⠑ ⠚ ⠁ ⠋⠑⠺⠒ ⠸⠩ ⠤⠤⠤⠤ ⠬⠢⠠ ⠤⠤⠤⠤ ⠤⠼⠒⠠
⠼⠆ ⠈⠡ ⠤⠤⠤⠤⠠ ⠼⠢⠴⠨⠌ ⠤⠤⠤⠤ ⠸⠱⠲

The first two expressions fit on line 2.

No space is left between an ellipsis or long dash and a related decimal point, monetary symbol, percent, or prime sign.

Example 2.13-2 14.9 − 12.3 = ____.6

⠸⠩ ⠼⠂⠲⠨⠔⠤⠂⠆⠨⠒ ⠨⠅ ⠤⠤⠤⠤⠨⠖ ⠸⠱

Example 2.13-3 \$3.52 − \$7.14 = \$ ______

⠸⠩ ⠈⠎⠒⠨⠢⠆⠤⠈⠎⠶⠨⠂⠲ ⠨⠅ ⠈⠎⠤⠤⠤⠤ ⠸⠱

Example 2.13-4 92% × .04 = ... %

⠸⠩ ⠼⠔⠆⠈⠴⠈⠡⠨⠴⠲ ⠨⠅ ⠄⠄⠄⠈⠴ ⠸⠱

Example 2.13-5 24" = ___'

⠸⠩ ⠼⠆⠲⠄⠄ ⠨⠅ ⠤⠤⠤⠤⠄ ⠸⠱

FORMAT

2.14 Paragraph Margins for Narrative Portions of Text (3-1): Narrative paragraphs in a document governed by Nemeth Code formatting begin in cell 3 with runovers in cell 1. Blocked paragraphing is not used in a technical transcription. *Reminder:* Nemeth Code formats are applied throughout a technical transcription, including portions transcribed in UEB. Each new paragraph will be indented two cells from the current margin.

PRACTICE 2F

Numerical Prefixes

Here are some examples of numeral prefixes: "Tetra-" means 4; "hexa-" means 6; "hepta-" means 7; "deca-" means 10; "dodeca-" means 12.

If a *dodecagon* is a 12-sided figure, a *dodecahedron* is a __-faced solid. A 10-faced solid is called a ________.

INTRODUCTION TO IDENTIFIERS

2.15 Terminology: Numbers or letters used to identify a problem, a mathematical expression, etc. are called *identifiers*. The material which immediately follows an identifier is called *itemized material.* Itemized subentries are referred to as *subdivisions* in the Nemeth Code.

FORMAT

2.16 Margins for Itemized Material with No Subdivisions (1-3): The identifier begins in cell 1; runovers begin in cell 3. If the material contains more than one paragraph, each subparagraph begins in cell 5 with runovers in cell 3.

Example 2.16-1

1. If gasoline costs 42 cents a gallon, what will 1,425 gallons cost?

2. At 60 cents a dozen, how much should 7 eggs cost?

Think: "What is 60 ÷ 12 ?" The answer is 5. What is 7 × 5 ?

```
⠼⠁⠲ ⠠⠊⠋ ⠛⠁⠎⠕⠇⠔⠑ ⠉⠕⠌⠎ ⠼⠙⠃ ⠉⠢⠞⠎ ⠁
  ⠛⠁⠇⠇⠕⠝⠂ ⠱⠁⠞ ⠺ ⠼⠁⠂⠙⠃⠑ ⠛⠁⠇⠇⠕⠝⠎ ⠉⠕⠌⠦
⠼⠃⠲ ⠠⠁⠞ ⠼⠋⠚ ⠉⠢⠞⠎ ⠁ ⠙⠕⠵⠢⠂ ⠓⠪ ⠍⠡ ⠩⠙ ⠼⠛
  ⠑⠶⠎ ⠉⠕⠌⠦
    ⠨⠂⠠⠹⠔⠅⠒ ⠦⠠⠱⠁⠞ ⠊⠎ ⠸⠩ ⠼⠖⠴⠨⠌⠂⠆ ⠸⠱⠦⠴
  ⠠⠮ ⠁⠝⠎⠺⠻ ⠊⠎ ⠼⠑⠲ ⠠⠱⠁⠞ ⠊⠎ ⠸⠩ ⠼⠶⠈⠡⠢ ⠸⠱⠦
```

Use clues from the print layout as well as the information in the paragraph to determine if the new paragraph is indeed a continuation of the item or if it is separate material. Compare Example 2.16-1 above with the next example.

Example 2.16-2

A. If gasoline costs 42 cents a gallon, what
will 1,425 gallons cost?
B. At 60 cents a dozen, how much should
7 eggs cost?

Think: "Should I multiply or should I divide? Can I solve the problem in one step?"

⠠⠁⠲ ⠠⠊⠋ ⠛⠁⠎⠕⠇⠔⠑ ⠉⠕⠌⠎ ⠼⠙⠃ ⠉⠢⠞⠎ ⠁
⠀⠀⠛⠁⠇⠇⠕⠝⠂ ⠱⠁⠞ ⠺ ⠼⠁⠂⠙⠃⠑ ⠛⠁⠇⠇⠕⠝⠎ ⠉⠕⠌⠦
⠰⠠⠃⠲ ⠠⠁⠞ ⠼⠋⠚ ⠉⠢⠞⠎ ⠁ ⠙⠕⠵⠢⠂ ⠓⠪ ⠍⠡ ⠩⠙ ⠼⠛
⠀⠀⠑⠶⠎ ⠉⠕⠌⠦
⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀
⠀⠀⠨⠂⠠⠹⠔⠅⠒ ⠦⠠⠩⠙ ⠠⠊ ⠍⠥⠇⠞⠊⠏⠇⠽ ⠕⠗ ⠩⠙ ⠠⠊
⠙⠊⠧⠊⠙⠑⠦ ⠠⠉ ⠠⠊ ⠎⠕⠇⠧⠑ ⠮ ⠏⠗⠕⠃⠇⠑⠍ ⠔ ⠐⠕
⠌⠑⠏⠦⠴

Notice that a blank line is left between itemized format and a 3-1 narrative paragraph.

Instructions: Format the first sentence as a narrative paragraph. Retain boldface for the paragraph heading. Insert a blank line between the narrative paragraph and the itemized material. Ignore typeface of the identifiers.

PRACTICE 2G

Refresher: These problems will test your skill with decimals.

1. First, addition: 42.6 + 37.23 + 3.215 =

2. Now subtract: 87.6 – 51.35 =

3. Try multiplication: 625.1 × 2.7 =

4. And now divide: 4.864 ÷ 3.2 =

FORMAT SUMMARY #1

Here is a summary of the Nemeth Code formats encountered so far in this course.

General Principles: When an item in a UEB transcription requires the use of Nemeth Code symbols, format rules of *The Nemeth Braille Code for Mathematics and Science Notation* are to be applied to the entire transcription including those portions transcribed in UEB. When a format is not specifically addressed in the Nemeth Code, the principles provided in *Braille Formats* should be followed.

Mathematical Expressions—Keep Together: If a mathematical expression will fit on one braille line within the current margins, it must not be divided between lines. The entire expression is brought down to the next line.

Paragraph Margins for Narrative Portions of Text (3-1): In a document governed by Nemeth Code formatting, an unitemized paragraph in explanatory portions of text begins in cell 3 and all runovers begin in cell 1. Blocked paragraphing is not used in a technical transcription.

Margins for Itemized Material with No Subdivisions (1-3): The identifier begins in cell 1; runovers begin in cell 3. If the material contains more than one paragraph, each subparagraph begins in cell 5 with runovers in cell 3.

Placement of Code Switch Indicators in Narrative Context: Place the entire math expression and the two code switch indicators on the same braille line if they will fit within the current margins. If the entire string will not fit on one line, a switch indicator may stand alone on a line to allow the math expression to remain undivided. It is preferable to keep the switch indicators on the same braille page as the mathematical material to which they apply.

Blank Line: A blank line is left between itemized format and a 3-1 narrative paragraph and vice versa.

For further practice, see Appendix A—Reading Practice.

ANSWERS TO PRACTICE MATERIAL

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠁

⠠⠱⠁⠞ ⠙⠕⠑⠎ ⠸⠩ ⠼⠂⠖⠬⠲⠬⠂⠴⠴ ⠸⠱ ⠑⠟⠥⠁⠇⠦

⠠⠊⠋ ⠸⠩ ⠼⠂⠴⠈⠡⠂⠴⠈⠡⠂⠴ ⠨⠅ ⠼⠂⠠⠴⠴⠴ ⠸⠱ ⠱⠁⠞ ⠙⠕⠑⠎ ⠸⠩ ⠼⠂⠴⠈⠡⠂⠴⠈⠡⠂⠴⠈⠡⠂⠴ ⠸⠱ ⠑⠟⠥⠁⠇⠦

⠠⠙⠕⠑⠎ ⠸⠩ ⠼⠢⠨⠌⠆ ⠸⠱ ⠐⠝ ⠁ ⠱⠕⠇⠑ ⠝⠥⠍⠃⠻⠦

⠸⠩ ⠈⠴ ⠸⠱ ⠐⠣⠦⠏⠻⠉⠢⠞⠴⠐⠜ ⠍⠂⠝⠎ ⠐⠏⠎ ⠏⠻ ⠓⠥⠝⠙⠗⠫⠆ ⠸⠩ ⠈⠴⠴ ⠸⠱ ⠐⠣⠦⠏⠻ ⠍⠊⠇⠇⠑⠴⠐⠜ ⠍⠂⠝⠎ ⠐⠏⠎ ⠏⠻ ⠹⠳⠎⠯⠲

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠃

⠠⠊⠋ ⠸⠩ ⠼⠲⠶⠤⠲⠂ ⠨⠂ ⠼⠂ [illegible] ⠸⠩ ⠼⠲⠂⠤⠲⠶ ⠐⠅ ⠼⠂ ⠸⠱⠦ [illegible]

⠠⠊⠋ ⠸⠩ ⠼⠢⠬⠂⠴ ⠸⠱ ⠑⠟⠥ [illegible] ⠸⠩ ⠼⠂⠴⠬⠢ ⠸⠱ ⠑⠟⠥⠁⠇⠦ [illegible]

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠉

[illegible]

[illegible]

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠙

⠠⠾ ⠁ ⠸⠩ ⠼⠶⠈⠴ ⠸⠱ ⠎⠁⠇⠑⠎ ⠞⠁⠭ ⠁⠙⠙⠫⠂ ⠓⠪ ⠍⠡
⠺ ⠁ ⠸⠩ ⠈⠎⠖ ⠸⠱ ⠃⠥⠎ ⠞⠊⠉⠅⠑⠞ ⠁⠉⠞⠥⠁⠇⠇⠽ ⠉⠕⠌⠦

⠘⠶⠠⠏⠻⠉⠢⠞ ⠞⠕ ⠠⠙⠑⠉⠊⠍⠁⠇⠒⠘⠄ ⠠⠞⠕ ⠒⠧⠻⠞⠂
⠙⠊⠧⠊⠙⠑ ⠮ ⠏⠻⠉⠢⠞ ⠃⠽ ⠼⠁⠚⠚⠒
⠸⠩ ⠼⠶⠦⠨⠖⠈⠴ ⠨⠅ ⠼⠶⠦⠨⠖⠨⠌⠂⠴⠴ ⠨⠅ ⠼⠴⠨⠶⠦⠖ ⠸⠱⠲

⠠⠚⠥⠇⠊⠕⠄⠎ ⠇⠕⠞ ⠍⠂⠎⠥⠗⠑⠎ ⠸⠩ ⠼⠢⠖⠄ ⠸⠱ ⠺⠊⠙⠑ ⠯
⠸⠩ ⠼⠂⠴⠴⠄ ⠸⠱ ⠙⠑⠑⠏⠲ ⠠⠮ ⠛⠜⠙⠢ ⠩⠫ ⠊⠎
⠸⠩ ⠼⠆⠴⠄⠦⠄⠄ ⠸⠱ ⠃⠁⠉⠅ ⠋ ⠮ ⠌⠗⠑⠑⠞⠲

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠑

⠠⠗⠑⠏⠗⠑⠎⠢⠞ ⠉⠢⠞⠎ ⠵ ⠙⠑⠉⠊⠍⠁⠇⠎⠠⠤
⠸⠩ ⠈⠎⠴⠨⠦⠔ ⠸⠱⠠⠤⠝ ⠇ ⠹⠠⠤⠸⠩ ⠼⠦⠔⠈⠉ ⠸⠱⠲

⠠⠍⠜⠉⠥⠎⠄ ⠁⠝⠎⠺⠻ ⠴ ⠸⠩ ⠼⠒⠶⠈⠉⠤⠤⠼⠒⠦⠈⠉ ⠸⠱ ⠊⠎
⠮ ⠉⠕⠗⠗⠑⠉⠞ ⠡⠁⠝⠛⠑⠲

⠠⠔ ⠙⠑⠛⠗⠑⠑⠎ ⠠⠋⠁⠓⠗⠢⠓⠑⠊⠞⠂ ⠠⠑⠜⠹⠄⠎
⠞⠑⠍⠏⠻⠁⠞⠥⠗⠑ ⠗⠁⠝⠛⠑⠎ ⠋ ⠸⠩ ⠤⠼⠂⠆⠖⠤⠂⠒⠖ ⠸⠱⠲

⠠⠑⠭⠏⠗⠑⠎⠎⠫ ⠔ ⠎⠑⠉⠕⠝⠙⠎⠂ ⠮ ⠩⠕⠗⠞⠑⠌ ⠍⠂⠝⠬⠰⠇
⠔⠞⠻⠧⠁⠇ ⠷ ⠐⠞ ⠐⠣⠠⠏⠇⠁⠝⠉⠅ ⠠⠐⠞⠐⠜ ⠒⠞⠁⠔⠎ ⠼⠙⠋
⠙⠑⠉⠊⠍⠁⠇ ⠏⠇⠁⠉⠑⠎⠒ ⠸⠩ ⠼⠴⠨⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠤
⠼⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠴⠢⠲ ⠸⠱⠖

In the first paragraph, because the UEB dashes are unspaced (as in print), the code switch indicators may touch the dash.

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠋

⠠⠝⠥⠍⠻⠊⠉⠁⠇ ⠠⠏⠗⠑⠋⠊⠭⠑⠎

⠠⠐⠓ ⠜⠑ ⠐⠎ ⠑⠭⠁⠍⠏⠇⠑⠎ ⠷ ⠝⠥⠍⠻⠁⠇ ⠏⠗⠑⠋⠊⠭⠑⠎⠒
⠦⠠⠞⠑⠞⠗⠁⠤⠴ ⠍⠂⠝⠎ ⠼⠙⠆ ⠦⠓⠑⠭⠁⠤⠴ ⠍⠂⠝⠎ ⠼⠋⠆
⠦⠓⠑⠏⠞⠁⠤⠴ ⠍⠂⠝⠎ ⠼⠛⠆ ⠦⠙⠑⠉⠁⠤⠴ ⠍⠂⠝⠎ ⠼⠁⠚⠆
⠦⠙⠕⠙⠑⠉⠁⠤⠴ ⠍⠂⠝⠎ ⠼⠁⠃⠲

⠠⠊⠋ ⠁ ⠨⠂⠙⠕⠙⠑⠉⠁⠛⠕⠝ ⠊⠎ ⠁ ⠼⠁⠃⠤⠎⠊⠙⠫
⠋⠊⠛⠥⠗⠑⠂ ⠁ ⠨⠂⠙⠕⠙⠑⠉⠁⠓⠫⠗⠕⠝ ⠊⠎ ⠁ ⠨⠤⠤⠋⠁⠉⠫
⠎⠕⠇⠊⠙⠲ ⠠⠁ ⠼⠁⠚⠤⠋⠁⠉⠫ ⠎⠕⠇⠊⠙ ⠊⠎ ⠉⠁⠇⠇⠫ ⠁ ⠨⠤⠲

PRACTICE 2F does not require any Nemeth Code switches. Rules of UEB are followed for the underscores.

⠠⠠⠏⠗⠁⠉⠞⠊⠉⠑ ⠼⠃⠠⠛

⠘⠂⠠⠗⠑⠋⠗⠑⠩⠻⠒ ⠠⠘⠮ ⠏⠗⠕⠃⠇⠑⠍⠎ ⠺ ⠞⠑⠌ ⠽⠗
⠎⠅⠊⠇⠇ ⠾ ⠙⠑⠉⠊⠍⠁⠇⠎⠲

⠼⠁⠲ ⠠⠋⠌⠂ ⠁⠙⠙⠊⠰⠝⠒
⠸⠩ ⠼⠲⠆⠨⠖⠬⠒⠶⠨⠆⠒⠬⠒⠨⠆⠂⠢ ⠨⠅ ⠿ ⠸⠱
⠼⠃⠲ ⠠⠝⠪ ⠎⠥⠃⠞⠗⠁⠉⠞⠒ ⠸⠩ ⠼⠦⠶⠨⠖⠤⠢⠂⠨⠒⠢ ⠨⠅ ⠿ ⠸⠱
⠼⠉⠲ ⠠⠞⠗⠽ ⠍⠥⠇⠞⠊⠏⠇⠊⠉⠁⠰⠝⠒
⠸⠩ ⠼⠖⠆⠢⠨⠂⠈⠡⠢⠨⠶ ⠨⠅ ⠿ ⠸⠱
⠼⠙⠲ ⠠⠯ ⠝⠪ ⠙⠊⠧⠊⠙⠑⠒ ⠸⠩ ⠼⠲⠨⠦⠖⠲⠨⠌⠒⠨⠆ ⠨⠅ ⠿ ⠸⠱

EXERCISE 2

Exercise 2 will be available when this course is finished being written and is no longer "Provisional".

Proceed to Lesson 3.