

## **LESSON 2**

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### **LESSON PREVIEW**

The punctuation indicator is introduced as we take a closer look at punctuation inside the switches. Summaries are given regarding the use/nonuse of the punctuation indicator. Nemeth grouping symbols are introduced. Code switching within numbered/lettered formats is discussed. Nemeth rules regarding hyphenated expressions are given. An alternate layout option for itemized material is considered.





## PRACTICE 2A

*Instructions:* Consider carefully where to place the code switch indicators and what kind of punctuation to use in these three sentences. Apply 3-1 Nemeth paragraphing.

72813654, when written as 72 81 36 54, is obviously divisible by 9.

Write these numbers: 3.29, 500, -123, 2,000.88, -250,794. Now add them together.

Is the answer 4.0‰, or is it 4.0%?

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**PUNCTUATION IN NEMETH CODE****2.4 Background**

So far we have looked at punctuation that is unambiguous in mathematical context: the mathematical comma and the short dash. These symbols are different from their UEB counterparts.

⦿ ⦿ Mathematical comma

⦿ ⦿ ⦿ Short dash

When other punctuation marks are transcribed inside the Nemeth switches, the punctuation symbols from UEB are used: the apostrophe, colon, exclamation point, period, question mark, quotation marks, and semicolon. (*Note:* Only the one-cell "double" quotation marks ⦿ ⦿ and the two-cell "single" quotation marks ⦿ ⦿ ⦿ ⦿ are used inside the Nemeth switches.) When a punctuation mark follows a math item and Nemeth is not terminated, clarification is required because the symbols are formed with the same braille dots as Nemeth numerals and symbols, as demonstrated in this list.

A semicolon ⦿ ⦿ could be misread in Nemeth as the numeral 2.

A colon ⦿ ⦿ could be misread in Nemeth as the numeral 3.

A period ⦿ ⦿ could be misread in Nemeth as the numeral 4.

An exclamation point ⦿ ⦿ could be misread in Nemeth as the numeral 6.

A question mark ⦿ ⦿ could be misread in Nemeth as the numeral 8.

A closing "double" quotation mark ⦿ ⦿ could be misread in Nemeth as the numeral 0.

A closing "single" quotation mark ⦿ ⦿ ⦿ ⦿ could be misread in Nemeth as a comma and the numeral 0.

An apostrophe ⦿ ⦿ could be misread in Nemeth as a prime sign.

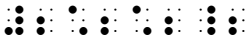
Clarification is achieved by use of the *punctuation indicator*.

## *The Punctuation Indicator*

### 2.5 Role of the Punctuation Indicator

A punctuation indicator is placed before one or more of the punctuation marks listed in the box in [Section 2.4](#) when such punctuation immediately follows a math item and Nemeth is not terminated. Use of the punctuation indicator assures that the braille is read as punctuation and is not misread as a mathematical symbol.

 Punctuation Indicator
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➤  $2 \cdot 2 \cdot 2;$      


*The punctuation indicator prevents the semicolon from being misread as the numeral 2.*


Keep in mind that the hyphen, the dash, and the mathematical comma (dot 6) do not need a punctuation indicator.


Exceptions occur for punctuated words and abbreviations. This will be covered in Lesson 3.


#### Example 2-7

In this example, a comma separates member pairs; a semicolon separates sets.  $2 \cdot 2$ ,  $2 \cdot 2 \cdot 2$ ;  $3 \cdot 3$ ,  $3 \cdot 3 \cdot 3$ ;  $4 \cdot 4$ ,  $4 \cdot 4 \cdot 4$ .

1            

2     

3     


4     

*Line 3: Although the opening Nemeth Code indicator will fit on line 2, the first math expression will not. Within a paragraph, keep each switch indicator on the same line as the mathematics to which it applies, if it will fit, so the opening switch starts line 3.*

*Line 4: The final period applies to the entire sentence. It is placed after the Nemeth Code terminator.*

2.5.1 **Two or More Punctuation Marks in a Row.** When two or more punctuation marks follow a mathematical item, only one punctuation indicator is used. If a comma is the second punctuation mark, the mathematical comma is transcribed.

➤  $"=".$      

➤  $"=",$      





































## 2.17 Code Switching with Unitemized Listed Nemeth Items

This topic is not addressed in the Nemeth code. In the lesson exercises, please follow these guidelines when switching codes before or after a list of unitemized Nemeth items.

- 2.17.1 **A List of Nemeth Items in One Column.** Place the opening Nemeth Code indicator in cell 1 on a line by itself. Begin the list on the next line. Place the Nemeth Code terminator following the last Nemeth item, at the end of that line if room allows. If there is not room on the line, place the closing switch in the runover position. This layout was demonstrated in [Practice 2B](#).
- 2.17.2 **A Multi-Column List of Nemeth Items.** Place the opening Nemeth Code indicator in cell 1 on a line by itself. Begin the list on the next line. Place the Nemeth Code terminator on the line following the multi-column list, in cell 1. This layout was demonstrated in Exercise 1.
- 2.17.3 **A Bulleted List.** The bullet symbols can be transcribed in either code. There is no need to switch out of Nemeth in order to transcribe a bullet.

### Example 2-41

- 1 + 6 = 7
- 2 + 5 = 7
- 3 + 4 = 7

1    ⠠⠠

2    ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠

3    ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠

4    ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

- 2.17.4 **A List with a Heading.** Code switching after a heading will be discussed in Lesson 4.





## *Summary of the Use/Nonuse of the Numeric Indicator*

Here is a summary of the use/nonuse of the numeric indicator covered so far in the lessons. Section citations are in brackets after each point. You may wish to add to this list as you learn more situations that require (or do not require) a numeric indicator.

### The numeric indicator is required in the following situations.

- Unless otherwise stated, a numeric indicator is required before a numeral that follows a space or before a numeral that begins a braille line. [P4]
- A numeric indicator is required before a decimal point that precedes a numeral when the decimal point follows a space or begins a braille line. [P6.2]
- A numeric indicator is required for a numeral which follows a multiplication asterisk. [P8.1]
- A numeral preceded by a minus symbol (a negative number) requires a numeric indicator when the minus symbol follows a space or begins a braille line. [P8.2]
- A numeric indicator is required between a minus symbol and a decimal point that precedes a numeral when the minus symbol follows a space or begins a braille line. [P8.2.a]
- A numeric indicator is inserted before the first digit of a divided numeral. [1.7.1]
- A numeric indicator is required following a short dash even though that number may not be preceded by a space. [1.7.3]
- A numeric indicator is required when a number or a negative number immediately follows an opening quotation mark. [2.5.3]
- In digital clock time transcribed in Nemeth, a numeric indicator is required following the colon. [2.5.4]

### The numeric indicator is not required in the following situations.

- A numeric indicator is not used following a space that partitions a number into segments. [P4.1]
- A numeric indicator is usually not needed within an unspaced expression. [P8.1]
- A numeral preceded by a plus symbol does not require a numeric indicator even when the plus symbol follows a space or begins a braille line. [P8.2]
- A numeral preceded by a plus symbol and a decimal point does not require a numeric indicator even when the plus symbol follows a space or begins a braille line. [P8.2.a.]
- A number which immediately follows a monetary symbol does not need a numeric indicator. [P10.1]
- A numeric indicator is not restated when a hyphen connects Nemeth numerals. [1.7.2]
- A numeric indicator is not used before a numeral that immediately follows a grouping symbol. [2.10.a]
- A numeric indicator is not used after a minus sign that immediately follows a grouping symbol. [2.10.b]

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*For further practice, see Addendum 1—Reading Practice.*

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Submit Exercise 2 to your instructor.

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