

PRELIMINARY LESSON

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LESSON PREVIEW

This lesson introduces the student to the design of the course as well as some basic Nemeth symbols. *Complete this lesson before studying Lesson 1.* Practice exercises are self-scored, and a short reading exercise is offered in Addendum 1.

P1 Philosophy

The Nemeth braille code is especially designed for the representation and transcription of mathematical notation encountered in educational materials on the subjects of mathematics and the sciences. Its purpose is to convey, as accurately as possible, a clear conception of the printed text to the braille reader. Using braille indicators in conjunction with the 63 braille characters, this code is capable of providing equivalent symbols for the hundreds of mathematical and scientific print signs now in use and yet to be devised. The one-to-one correspondence between braille and print symbols makes it possible to produce an accurate transference from print to braille or from braille to print.

P2 Literary vs. Technical Texts

- P2.1 **Literary Texts.** Literary works which use only occasional mathematical notation are transcribed in accordance with the rules of Unified English Braille ("UEB"), using mathematical symbols and rules given in the most recent edition of *The Rules of Unified English Braille* and *Unified English Braille Guidelines for Technical Material*.

PRACTICE D

Instructions: Begin each mathematical expression on a new line in cell 1.

$$8.5 < 74$$

$$85 > 9.6$$

$$29 \cdot 3 = 3 \cdot 29$$

$$14 : 2 :: 7 : 1$$

$$19,530 - 2,016 \times 8.25 + 6.75 = 262,710.00$$

MONETARY, PERCENT, AND PRIME SIGNS

P10 Monetary Signs

The monetary symbols of the Nemeth code are constructed the same way as the UEB symbols.

⠠⠠⠠⠠	Cent	¢
⠠⠠⠠⠠	Dollar	\$
⠠⠠⠠⠠	Euro	€
⠠⠠⠠⠠	Franc	₣
⠠⠠⠠⠠	Naira	₦
⠠⠠⠠⠠	Pound Sterling	£
⠠⠠⠠⠠	Won	₩
⠠⠠⠠⠠	Yen or Yuan	¥

If a monetary sign is printed for which there is no established symbol, the transcriber should create a symbol following the same "dot 4" pattern shown above.

P10.1 Spacing with Monetary Symbols. No space is left between a monetary symbol and its related quantity. A number which immediately follows a monetary symbol does not need a numeric indicator.

Example P-17

25¢

\$3.50

⠠⠠⠠⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

P11 Percent and Per Mille Signs

⠠⠠⠠⠠	Percent	%
⠠⠠⠠⠠⠠⠠	Per mille	‰

P11.1 Spacing with Percent and Per Mille Symbols. No space is left between the symbol and its related quantity.

Example P-18

45%

⠠⠠⠠⠠⠠⠠⠠⠠

Example P-19

35‰

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

P12 Prime Sign

⠠	Prime	'
⠠⠠	(two primes)	"

The braille symbol is used wherever the print sign appears in mathematical context, regardless of its meaning. When more than one prime sign is used in print, the equivalent number of symbols are used in braille. Prime symbols must be unspaced from each other and from the quantity to which they apply. In [Example P-20](#), the prime sign denotes feet and inches.

Example P-20

4'3" > 43"

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

PRACTICE E

Instructions: Retain the simple vertical listing, beginning each line in cell 1.

$$25¢ - 5¢ = 20¢$$

$$\$4.89 + 5.5\% = \$5.16$$

$$36‰ \times 100 = 3.6$$

$$5'8" = 68"$$

$$\$1 = \text{£}0.633456$$

THE TRANSCRIBER'S RESPONSIBILITY

P15 Follow Print

This is a good place to remind you of your responsibility to be true to the print page even when you suspect there is an error. *Braille Formats* states “A transcriber does not edit text.” This includes any math that you may think (or know) is incorrect.

For further practice, see Addendum 1—Reading Practice.

STUDY TIPS

This is a self-guided course. There are many features to help you learn the material. Examples with commentary illustrate the rules. Practice drills reinforce topics recently presented and answers are provided so you can monitor your progress. Reading practice is offered in Addendum 1. The following study tips will help you get the most out of the lessons.

LEARNING THE MATERIAL

- Do not race through the lesson material.
- Read carefully and deliberately as the narrative is compact and the language is exact.
- Study the examples and understand the point being made with each one but do not rely on the examples alone for an understanding of the rules.
- In the print examples, circle or highlight the Nemeth portion. Transcribe the examples to reinforce the rule.
- Try back translating the braille examples and practices without looking at the print.
- Take special note of rules regarding spacing, punctuation, abbreviations, and format.
- Make lists to help you remember differences between Nemeth and UEB rules.
- Underline, highlight, and write notes in the margins of your lesson manual.
- Compare new information to similar topics learned in previous lessons.
- Some of the lesson material is grouped in "use of" and "nonuse of." Compare them and look closely at the braille examples.
- Ask for clarification when a rule does not make sense to you.

THE PRACTICE MATERIAL

- Circle or highlight everything that should be transcribed in Nemeth.
- Slow down. By using 6-key entry instead of a translator you will better understand the braille from the reader's point of view.
- Proofread carefully before looking at the answers. Check that every opening Nemeth Code indicator is paired with a Nemeth Code terminator. Similarly, check for other paired symbols, such as fraction indicators, modified expression symbols, and level indicators.
- When comparing your braille transcription to the answer key, read each cell closely. At the end of each line, look at the braille cell in the line above and in the line below and compare it to the answer key. Any misalignment indicates an error on that line.
- When you identify your errors, return to the lesson to review the applicable rule.

PREPARING THE EXERCISE FOR GRADING

- You will have two chances to turn in a near-perfect transcription of each exercise. Ask questions and review the rules before turning in your work.
- You are expected to turn in high quality work and not to use your grader as a proofreading tool.
- Do not try to copy braille examples that look like the exercise material. Instead, understand and apply the rule.
- Make note of items of which you are unsure. After receiving your report, even if your transcription is correct, look over these items again to reinforce the rule.

RESEARCH/REVIEW

- Analyze the mistakes found in your work and make sure you understand your errors before moving ahead to the next lesson. Ask questions until you are confident.
- Return to earlier lessons. Topics will make more sense to you in retrospect.
- Read Addendum 3 of this course ("Nemeth Format Summaries").
- Return to an earlier lesson exercise and back-translate the practices or your braille exercise by writing in longhand. Do not look at the print copy until you are finished. Giving yourself some distance from the lesson material is a good review strategy.
- In later lessons, research the topic in the Nemeth code in addition to studying the lesson book. Not only will this enrich your understanding of the current subject, you will also review material already learned in a new context.

PROOFREADING TIPS

Accuracy is crucially important in technical work. Your proofreading skills will be challenged.

- Is your lighting adequate?
- Use a magnifier when print is small.
- Use a straightedge when levels are difficult to determine.
- Take breaks when your concentration wanes.
- Read the braille dots. Compare often to the print copy.
- Vary your reading medium – don't always proofread from the screen or from simulated braille or from embossed braille.

BRAILLE TRANSLATION SOFTWARE

Many Nemeth students have been transcribing for years and have thousands of pages of braille to their credit. They also have been taking advantage of the many electronic input and proofreading aids available to transcribers and are quite adept at turning out high quality work. We expect you are one of those transcribers.

You are undertaking a serious study of one of the technical braille codes, and we would like you to consider stepping back a bit and learning the old fashioned way, using 6-key entry in your braille software program. It is our experience that the best transcribers are those that can read and write braille as the 6-dot code that it is, not solely reading a back translation or a source file and not using another input code to 'type' math problems. Using proofreading and production aids for more accurate and faster work is certainly something you will continue to use – it is important that you understand how your particular software and translation tools work in Nemeth mode – but we are convinced you will understand the material better if you take the 6-key approach while learning.

