

The Five-Step Rule for Writing Modified Expressions

Nemeth symbols and concepts addressed:

- Multipurpose indicator
- Directly-over indicator
- Directly-under indicator
- Modifiers such as the horizontal bar, two-way horizontal arrow, and contracted right-pointing arrow
- Termination indicator
- "Is parallel to" symbol
- "Is perpendicular to" symbol
- "Is congruent to" symbol

Objectives:

The student will be able to:

- 1) Read and write Nemeth braille symbols used in modified expressions
- 2) Read grade-level modified expressions
- 3) Use the Five-Step Rule to write grade-level modified expressions

Teaching tips:

- Before opening any BRF files in Duxbury, go into the Global menu. Select "Formatted Braille Importer" and then check the box for "Read formatted braille without interpretation" at the top of the window. This will ensure that nothing is changed when opening the BRF files.
- In addition to the embedded activities within the mini lesson, there are two follow-up activities. These should be completed after reviewing both the Five-Step Rule for Writing Modified Expressions and *Exceptions to the Five-Step Rule* mini lessons.
- In the Five-Step Rule, a student may pause while they are reading the whole expression before being able to name it.
- When reading modified expressions in braille, the multipurpose indicator (dot 5) is often misread as a "1".
- It may be helpful to remind students that decimals can be written with or without the zero before the decimal point.
- If needed, remind the student to check his/her work during writing activities.
- The Five-Step Rule provides a systematic way of reading and writing modified expressions.

- For additional information and examples about the modifications used in higher-level mathematics, refer to the [*Nemeth Braille Code for Mathematics and Science Notation, 1972 Revision*](#) and all Nemeth updates.