Teaching and Learning of the Nemeth Braille Code

- Modifiers
- Modified Expressions
- Contracted Form of Modification
- Recurring Digits in Decimal Numbers
- Contractions in Modified Words
Modifiers

Definition

- A superscript or subscript placed directly over or directly under a mathematical expression

Commonly Used Symbols

- Arcs, Arrows, Bars, Dots, Tildes, etc
Arcs and Bars

- Arc Concave Upward
- Arc Concave Downward
- Horizontal Bar (wh)
- Vertical Bar
Dots, Tilde, and Delta

- Dot
- Hollow Dot
- Tilde
- Delta
Arrows

- Barbed at both ends  ⇔
  - ▣ ▣ ▣ ▣
- Barbed at the left  ←
  - ▣ ▣ ▣ ▣
- Barbed at the right  →
  - ▣ ▣ ▣ ▣
- Contracted  ➔
- Uncontracted  ➔
Modified Expressions

- Five Step Rule – in order
  (never separate parts)
  - The multipurpose indicator
  - Expression being modified
  - Directly over or under indicator
  - Modifier
  - Termination indicator
Examples

- **AB**
- **CD**
- **EF**
Contracted Form of Modification

- A single digit or letter modified by a horizontal bar directly over it
- Expressed simply by transcribing the digit or letter followed by the bar
- Use whenever possible
Examples

- $x$
- $xyz$
- $x^2$
- $\bar{.3}$
Recurring Digits in Decimal Numbers

- Uses a horizontal bar or a dot above what is recurring in a decimal number
- In braille, a single dot or horizontal bar is used. Why aren’t more needed?
Examples

- 0.7128
- 3.5729
- 0.3
- 0.135
- 0.135
- \ddot{x}
Contractions in Modified Words

- Contractions may not be used in a word or abbreviation that is in contact with any modifier symbol.
- The PI must be used before punctuation that follows a modified expression.
Examples

- heat

- One ninth = \( \text{.1} \).
Assignment

p. 77 all