Project INSPIRE Course Objectives

Course 6: Nemeth Code Symbols Used in High School and Strategies for Supporting Math Learning

Lesson 1: Symbols for Advanced Math, Part 1

1.1 Read and write problems containing

- vertical bars (e.g., absolute value, set notation)
- brackets and braces (e.g., function notation and interval notation)
- the infinity symbol
- the hollow dot
- angle brackets

1.2 Read and write math word problems that require use of the opening Nemeth Code indicator, the Nemeth Code terminator, and the single-word switch indicator.

Lesson 2: Symbols for Advanced Math, Part 2

2.1 Read and write problems containing

- enlarged grouping symbols
  - piecewise functions
  - systems of equations
  - matrices
  - determinants
- set theory notation (e.g., empty set, subset, union, intersection)

2.1 Determine when enlarged grouping symbols are or are not to be used.

Lesson 3: Symbols for Advanced Math, Part 3

3.1 Read and write problems containing

- Superscripts
- Subscripts
- radicals with an index
- functions

- Greek letters

3.2 Use the five step rule for Sigma notation

Lesson 4: Materials and Strategies for High School

4.1 Locate and use formatting resources

4.2 Transcribe and/or prepare the following:
- Word problems
- Keeping math expressions together
- Dividing math expressions

4.3 Format the following:
- Headings
- Directions
- Numbered problems
- Formal proofs

Lesson 5: Materials and Strategies for High School

5.1 Understand how best to support students in high school math classes.

5.2 Understand what tools and materials can be used to support high school mathematics learning.

5.3 Understand which concepts in tactile graphics can be challenging for students who are braille users.

Lesson 6: Calculators, Computers, Notetakers, and More in the Math Classroom

6.1 Identify the features of common graphing calculators (e.g., Orion TI-84+, Desmos) used by high school students who are braille users.

6.2 Identify the pros and cons of using different tools (e.g., Perkins braillewriter, braille notetaker) for math tasks.

6.3 Support a student in deciding what tools to use for different math situations to maximize their independence.