



## Topics Addressed in Preparation Resources for MWSU Mathematics Placement Exam



### Topic 1. Integers and Rational Numbers

- A. Adding Integers
- B. Subtracting Integers
- C. Multiplying and Dividing Integers
- D. Order of Operations with Integers
- E. Simplifying Fractions
- F. Adding and Subtracting Fractions
- G. Multiplying Fractions
- H. Dividing Fractions
- I. Order of Operations with Fractions
- J. Evaluating Expressions at Specified Values

### Topic 2. Irrational Numbers

- A. Estimating Square Roots
- B. Simplifying Square Roots
- C. Writing Square Roots in Equivalent Forms
- D. Simplifying Square Roots Involving Variables

### Topic 3. Algebraic Expressions

- A. Properties of Exponents
- B. Adding and Subtracting Polynomials
- C. Multiplying Polynomials
- D. Dividing by a Monomial

### Topic 4. Linear Equations in One Variable

- A. Solving Linear Equations
- B. Solving Linear Equations (Advanced)
- C. Solving Absolute Value Equations
- D. Solving Absolute Value Equations (Advanced)

### Topic 5. Linear Inequalities in One Variable

- A. Inequalities and Interval Notation
- B. Solving Linear Inequalities
- C. Solving Linear Inequalities (Advanced)

### Topic 6. Evaluating Functions

- A. Evaluating Linear Functions
- B. Evaluating Linear Functions Involving Fractions
- C. Evaluating Exponential Expressions
- D. Evaluating Exponential Expressions (Advanced)

### Topic 7. Graphing in the Coordinate Plane

- A. Linear Equations in Two Variables
- B. Determining the Slope
- C. Horizontal and Vertical Lines
- D. Intercepts
- E. Exponential Equations
- F. Interpreting Graphs

### Topic 8. Logarithms

- A. Converting from Logarithmic to Exponential Form
- B. Converting from Exponential to Logarithmic Form
- C. Evaluating Logarithms
- D. Simplifying Logarithmic and Exponential Expressions

### Topic 9. Exponential and Logarithmic Equations

- A. Solving Exponential Equations
- B. Solving Exponential Equations (Advanced)
- C. Solving Logarithmic Equations
- D. Solving Logarithmic Equations (Advanced)

### Topic 10. Linear Equations in Two Variables

- A. Linear Equations in Two Variables
- B. Finding the Equation of a Line
- C. Horizontal and Vertical Lines
- D. Determining Characteristics of a Line

### Topic 11. Factoring

- A. Greatest Common Factor
- B. Factoring Trinomials (Part 1)
- C. Factoring Trinomials (Part 2)
- D. The Difference of Two Squares
- E. Factoring Completely

### Topic 12. Quadratic Equations in One Variable

- A. Solving Quadratic Equations
- B. Solving Quadratic Equations by Factoring
- C. Solving Quadratic Equations by Factoring (Advanced)