

## Math 70 Topics for Exam 2

### Chapter 1: Real Numbers and Variables

- Combining Like Terms - §1.7
- Using Substitution to Evaluate Algebraic Expressions and Formulas - §1.8
- Grouping Symbols (Work with the innermost parenthesis first.) - §1.9

### Chapter 2: Equations

- The Addition Principle of Equality - §2.1
  - Solving equations by adding or subtracting the same value from each side of the equation
- The Multiplication Principle of Equality - §2.2
  - Solving equations by multiplying or dividing the same non-zero value from each side of the equation
- Using both the Addition and Multiplication Principles to solve equation - §2.3
  - Using the addition principle to get the terms with the variable on one side of the equation and the constants on the other. Then use the multiplication property to isolate the variable.
- Solving Equations Involving Fractions - §2.4
  - You can “clear the fractions” by multiplying both sides of the equation by the LCD.
- Solving formulas for a particular variable - §2.5

### Chapter 3: Solving Applied Problems

- Translating English Phrases into Algebraic Expressions - §3.1
  - Unknown quantities or numbers are represented by variables.
- Using Equations to Solve Word Problems - §3.2
  - Distance = Rate(Time)
  - Average of a set of values =  $\frac{\text{Sum of all values}}{\text{Number of values}}$
- Solving Word Problems with Two or More Quantities - §3.3
  - Remember to write down the unknown quantities and to assign a variable to one of the quantities. The other quantities can be written with this variable in an expression.

### Chapter 4: Exponents and Polynomials

- Rules of Exponents - §4.1
  - Product Rule  $(x^a \cdot x^b = x^{a+b})$

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Here are **some** good review problems from the end of the chapters.

- Ch. 1 Review (pgs. 128-130): 59-67(Odd), 71-77(Odd), 81, 102
- Ch. 2 Review (pgs. 183-185): 1-33(Odd), 45-53(Odd)
- Ch. 3 Review (pgs. 241-242): 1-7 (Odd), 10-16, 19, 20
- Ch. 4 Review (pg. 295): 1-4

**Make sure to review the assigned homework problems and old quizzes.**