Summary Chapter 2: Solving Linear Equations
Intermediate Algebra from OpenStax, a free and open online textbook

Section 1:
Terminology
- Linear equation in one variable
- Addition Property of Equality
- Multiplication Property of Equality

Be Able To
- Apply the Addition Property of Equality to solve a linear equation in one variable
- Apply the concepts
- Apply the Multiplication Property of Equality to solve a linear equation in one variable
- Apply both the Addition and Multiplication Property of Equality to solve a linear equation in one variable
- Apply the concepts

Section 2:
Terminology
No additional definitions

Be able to use the formula
- Formula for Simple Interest:

\[ I = Prt \]

Section 3:
Terminology
- Formula

Be Able To
- Solve a formula for a specific variable
- Use formulas to solve geometry applications

Section 4:
Omitted

Section 5:
Terminology
- Linear inequality in one variable
- Addition Property for Inequalities
- Multiplication Property for Inequalities

Be Able To
- Apply the Addition Property for Inequalities to solve a linear inequality in one variable
- Apply the Multiplication Property of Inequalities to solve a linear inequality in one variable
- Apply both the Addition and Multiplication Property of Equality to solve a linear inequality in one variable
- Construct and solve linear inequalities in one variable
- Apply the concepts

Section 6:
Terminology
- Compound Inequality

Be Able To
- Apply the Addition Property for Inequalities to solve a linear compound inequality in one variable
- Apply the Multiplication Property of Inequalities to solve a linear compound inequality in one variable
- Apply both the Addition and Multiplication Property of Equality to solve a linear compound inequality in one variable

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• Construct and solve linear compound inequalities in one variable
• Apply the concepts

**Sample Applications of Chapter 2 Content**
- Use a given expression to calculate target heart rate
- Solve circumference of circle formula for a specified variable
- Solve markup formula for a specified variable
- Solve supplementary angles formula for a specified variable
- Solve complementary angles formula for a specified variable
- Solve sum of angles in a Triangle formula for a specified variable
- Solve profit formula for a specified variable
- Solve discount formula for a specified variable
- Solve Hardy-Weinberg formula for a specified variable. **Example:** $p + q = 1$ where $p$ is the frequency of the dominant allele in a population and $q$ is the frequency of the recessive allele
- Solve distanced formula for a specified variable
- Solve Fahrenheit to Celsius formula for a specified variable
- Solve Celsius to Fahrenheit formula for a specified variable
- Solve Celsius to Kelvin formula for a specified variable
- Solve perimeter of triangle formula for a specified variable
- Solve perimeter of trapezoid formula for a specified variable
- Solve perimeter of square formula for a specified variable
- Solve perimeter of parallelogram formula for a specified variable
- Solve perimeter of rectangle formula for a specified variable
- Solve area of parallelogram formula for a specified variable
- Solve area of triangle formula for a specified variable
- Solve area of trapezoid formula for a specified variable
- Solve area of triangle formula for a specified variable
- Solve volume of rectangular solid formula for a specified variable
- Solve volume of right circular cone formula for a specified variable
• Solve volume of right circular cylinder formula for a specified variable
• Solve simple interest formula for a specified variable
• Solve distance formula for a specified variable
• Solve Newton’s 2\textsuperscript{nd} Law of Motion formula for a specified variable
• Solve continuous compound interest formula for a specified variable