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| Section 1.4: Rewriting Equations and Formulas |
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| Goal: Rewrite equations and common formulas with more than one variable. |
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| ISOLATE THE VARIABLE! |
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Examples:

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| 1. Solve the equation $xy - y = 2$ for x . Then find the value of x when $y = 2$. |
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| 2. Solve $A = \frac{1}{2}(b_1 + b_2)h$ for h . |
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| 3. Solve $F = \frac{9}{5}C + 32$ for C , where F = degrees Fahrenheit and C = degrees Celsius. |
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| 4. Change $85^\circ F$ to degrees Celsius. |
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| 5. Change $12^\circ C$ to degrees Fahrenheit. |
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Section 1.5: Problem Solving Using Algebraic Models

Goal: Use a general problem solving plan to solve real-life problems.

General Problem Solving Plan

1. Write a verbal model or draw a diagram, if necessary.
EX) Distance = _____
2. Assign labels
-Define variables and other given values.
3. Write an algebraic model
-Substitute variables and values into verbal model.
4. Solve the algebraic model.
5. Answer the question.

Example:

1. Two airports, one in California and one in New York, are 3000 miles apart. A plane leaving California is traveling to New York at 200 miles per hour. Another plane leaving New York at the same time is traveling to California at 250 miles per hour. When will the two planes pass each other?

Step 1: Verbal Model

Step 2: Assign Labels

Step 3 and 4: Write and solve an Algebraic Model

Step 5: Answer the Question