



2.5 Problem Solving

Need To Know



- Guide lines to solve word problems
- How to become familiar with a problem
- Apply



Guide Lines to Solve Problems

Five Steps for Problems Solving

1. Familiarize myself with the problem.
2. Translate to mathematics (i.e. an equation).
3. Carry out the mathematics (i.e. solve).
4. Check your answer in the original problem.
5. State your answer clearly.



Familiarize Yourself w/ Problem

1. Read and reread the problem, visualize it, read it aloud and understand key words.
2. List the given information and question(s) to be answered
3. _____
_____ **(REQUIRED)**
4. Find more information, look up formulas or do research need to start.
5. Use the other **TOOLS**.



Apply

Subtracting 5 from twice a number is 11.
Find the number.

Steps

1. Familiarize
2. Translate
3. Carry out
4. Check
5. State answer

Tools

1. Keywords
2. Drawing
3. Simpler problem
4. Tables/Patterns
5. Charts
6. Guess
7. Verbal Model



Apply

In Cranston, taxis charge \$4 plus 90¢ per mile for an airport pick-up. How far can Ralph get for \$17.50?

Steps

1. Familiarize
2. Translate
3. Carry out
4. Check
5. State answer

Tools

1. Keywords
2. Drawing
3. Simpler problem
4. Tables/Patterns
5. Charts
6. Guess
7. Verbal Model



Apply

The perimeter of a triangle is 195 mm. If the lengths of the sides are consecutive odd integers, find the sides.

Steps

1. Familiarize
2. Translate
3. Carry out
4. Check
5. State answer

Tools

1. Keywords
2. Drawing
3. Simpler problem
4. Tables/Patterns
5. Charts
6. Guess
7. Verbal Model



Apply

Milton borrowed money from his friend at a rate of 10% simple interest. One year later he paid \$7194 to clear the loan. How much did he borrow?

Steps

1. Familiarize
2. Translate
3. Carry out
4. Check
5. State answer

Tools

1. Keywords
2. Drawing
3. Simpler problem
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5. Charts
6. Guess
7. Verbal Model