

## Algebra – Solving Word Problems

### Steps for Solving Word Problems

1. Read the problem. What is the problem asking for?
2. If possible, draw a picture, diagram, and/or table to help visualize and organize the information. Label or fill in any information directly stated in the problem.
3. Using a “Let” statement, define the variable.
4. Using your variable, write one or more expressions (not equations) defining any additional information.
5. Label your picture or fill in your table with the additional information from steps 3 and 4.
6. Write an equation.
7. Solve.

### Rectangle Problems

$$P = 2L + 2W \text{ (Perimeter = 2 times the length + 2 times the width)}$$

**Example 1: The length of a rectangle is 6 in. more than its width. The perimeter of the rectangle is 24 in. What is the width and length of the rectangle?**

### More Rectangle Problems

**Example 2:** The width of a rectangle is 3 in. less than its length. The perimeter of the rectangle is 16 in. What is the length and width of the rectangle?

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**Example 3:** A rectangle is twice as long as it is wide. If the perimeter is 84, what is the length and width of the rectangle.

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### Consecutive Integer Problems

**Example 4:** The sum of three consecutive integers is 147. Find the integers.

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**Example 5:** The sum of three consecutive integers is 48. Find the integers.

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**Example 6:** The sum of two consecutive even integers is 42. What are the two integers?