Word Problems 1

Example 1. The area of a rectangle is 195 m². One side measures 13 m. How long is the other side?

To write the equation, you need to remember that the area of any rectangle is calculated as $\boxed{\textbf{area = side · side}}$.

That relationship gives us our equation. We simply substitute the known area and the length of the known side into the equation and represent the length of the unknown side by some variable:

$$195 = s \cdot 13$$

Then we rewrite the expression $s \cdot 13$ in the usual way, where the coefficient (13) comes first and the variable(s) last. We also flip the sides of the equation, so the unknown is on the left: $13s = 195$.

Solution:

$$13s = 195$$

$$\frac{13s}{13} = \frac{195}{13} \qquad \text{We divide both sides by 13 and simplify.}$$

$$s = 15 \qquad \text{This is the solution.}$$

Check:

$$13 \cdot 15 \overset{?}{=} 195$$

$$195 = 195 \checkmark$$

For each given situation, write an equation and solve it. The problems themselves are simple, and you could solve them without writing an equation, but it is important to practice writing equations! You need to learn to write equations for simple situations now, so you will be able to write equations for more complex situations later on.

1. The perimeter of a square is 456 cm. How long is one side?

   Equation:

2. The area of a rectangular park is 4,588 square feet. One side measures 62 feet. How long is the other side?

   Equation: