

Name \_\_\_\_\_

Date \_\_\_\_\_

## Perimeter and Area

**Perimeter** and **area** are two different terms that help us know how big or small an object is. The perimeter of an object is the sum of the length of all of the sides. For example, the perimeter of a square would be the sum of the four sides of the square.

If a square is four feet on each side, we can add up the four sides to determine the perimeter of the square:

$$4 \text{ ft} + 4 \text{ ft} + 4 \text{ ft} + 4 \text{ ft} = 16 \text{ ft}$$

In other words, the perimeter of the square is 16 feet. To find the perimeter of an object, we would use the following equation:

$$p = l + w$$

In other words, the perimeter of an object equals the length of its sides plus the width of its sides.

The area of an object or figure measures the size of the region enclosed by the figure. Area is always expressed in terms of some type of square unit. Some of the most common examples of these units are: square **meters**, square **feet**, and square **inches**.

In order to find the area of a figure, you can use the following equation:

$$a = l \times w$$

In other words, the area of a figure can be found by multiplying the length of the figure by the width of the figure. For example, if a rectangle is four inches long and three inches wide, we can find the area of the rectangle.

$$a = 4 \text{ in.} \times 3 \text{ in.}$$
$$a = 12 \text{ square inches}$$

Likewise, we can find the length of one of the sides of a figure if we know the area of the figure and one of the other measurements. For example, if we know that the area of a rectangle is 20 square feet and that one of the sides of the rectangle is 4 feet, we can solve for the measurement of the side that we do not know.

$$20 = 4 \text{ times } x$$

$$20 = 4x$$

$$20/4 = x$$

$$4 = x \text{ or } x = 4$$

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## Activities

**Activity A:** Fill In the Blanks.

1. The \_\_\_\_\_ of an object is the sum of the length of all of the sides.
2. The \_\_\_\_\_ of an object or figure measures the size of the region enclosed by the figure.
3. Area is always expressed in terms of some type of \_\_\_\_\_ unit.

**Activity B:** Solve the following. Use the space provided to solve your problem.

1. What is the perimeter of a square that is 4 inches on all sides? \_\_\_\_\_
2. What is the area of a rectangle that is 4 inches long and 2 inches wide? \_\_\_\_\_
3. If the area of a rectangle is 24 square inches and you know that the length of the rectangle is 6 inches, what is the width of the rectangle? \_\_\_\_\_
4. What is the perimeter of a square that is 6 inches on all sides? \_\_\_\_\_
5. What is the area of a square that is 6 inches on all sides? \_\_\_\_\_
6. If the area of a rectangle is 10 square inches and you know that the length of the rectangle is 5 inches, what is the width of the rectangle? \_\_\_\_\_

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## Answer Key

### Activity A

1. The perimeter of an object is the sum of the length of all of the sides.
2. The area of an object or figure measures the size of the region enclosed by the figure.
3. Area is always expressed in terms of some type of square unit.

### Activity B

1. What is the perimeter of a square that is 4 inches on all sides? **16 inches**
2. What is the area of a rectangle that is 4 inches long and 2 inches wide? **8 square inches**
6. If the area of a rectangle is 24 square inches and you know that the length of the rectangle is 6 inches, what is the width of the rectangle? **4 inches**
7. What is the perimeter of a square that is 6 inches on all sides? **24 inches or 2 feet**
8. What is the area of a square that is 6 inches on all sides? **36 square inches**
9. If the area of a rectangle is 10 square inches and you know that the length of the rectangle is 5 inches, what is the width of the rectangle? **2 inches**