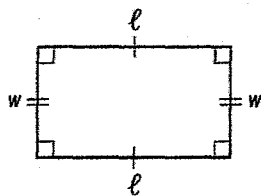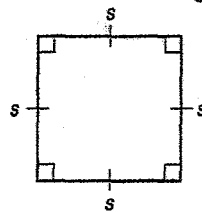# 6 Perimeter and Area of Squares and Rectangles

Perimeter is the distance around a geometric figure. Perimeter is measured in linear units.

- To find the perimeter of a rectangle, multiply two times the sum of the length and width, or $2(\ell + w)$.
- To find the perimeter of a square, multiply four times the length of a side, or $4s$.
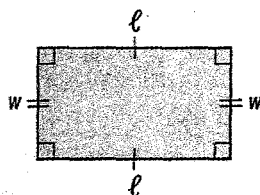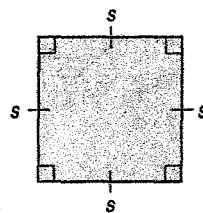
$$P = 2(\ell + w) \text{ or } 2\ell + 2w \qquad\qquad P = 4s$$

Area is the number of square units needed to cover a surface. Area is measured in square units.

- To find the area of a rectangle, multiply the length times the width, or $\ell \cdot w$.
- To find the area of a square, find the square of the length of a side, or s^2.

$$A = \ell w \qquad\qquad\qquad A = s^2$$

Exercises   Find the <u>perimeter and area</u> of each figure.

1. 3 cm, 2 cm

perimeter $= 2\ell + 2w$

Area $= \ell \cdot w$

2. 1 in.

Perimeter $= 4s$

Area $= s^2$

3. 7 yd, 1 yd

perimeter $= 2\ell \cdot 2w$

Area $= \ell \cdot w$

4. 7 km

perimeter $= 4s$

Area $= s^2$

5. a rectangle with length 6 feet and width 4 feet

perimeter $= 2\ell + 2w$ Area $= \ell \cdot w$

6. a rectangle with length 12 centimeters and width 9 centimeters

perimeter $= 2\ell + 2w$ Area $= \ell \cdot w$

7. a square with length 3 meters

perimeter $= 4s$ Area $= s^2$

8. a square with length 15 inches

perimeter $= 4s$ Area $= s^2$