

Name _____ Date _____

Study Guide

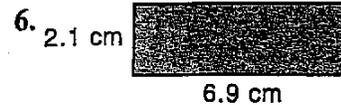
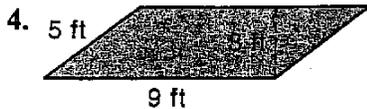
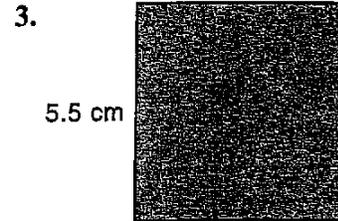
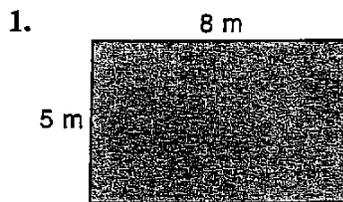
Integration: Geometry Perimeter and Area

Perimeter is the distance around the figure.

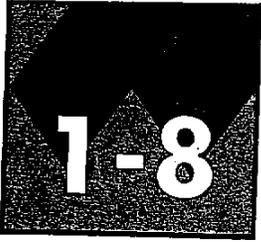
Area is the measure of the inside of the figure in square units.

| Figure | Rectangle | Square | Parallelogram |
|-----------|---|--|---|
| Perimeter | $P = 2\ell + 2w$ | $P = 4s$ | $P = 2a + 2b$ |
| Area | $A = \ell w$ | $A = s^2$ | $A = bh$ |
| Example | <p>$\ell = 9 \text{ m}$ $w = 4 \text{ m}$</p> <p>$P = 2(9) + 2(4)$ $P = 18 + 8 = 26 \text{ m}$ $A = 9 \cdot 4$ $A = 36 \text{ sq. m}$</p> | <p>$s = 8 \text{ cm}$</p> <p>$P = 4 \times 8$ $P = 32 \text{ cm}$ $A = 8^2$ $A = 64 \text{ sq. cm}$</p> | <p>$a = 7 \text{ ft}$ $b = 5 \text{ ft}$</p> <p>$P = 2(7) + 2(5)$ $P = 14 + 10 = 24 \text{ ft}$ $A = 5 \cdot 6$ $A = 30 \text{ sq. ft}$</p> |

Find the perimeter and area of each figure.



- A rectangle is 18 feet long. Find its perimeter if its width is $\frac{1}{2}$ of its length.
- Use an equation to find the width of a rectangle that has a length of 12 meters and an area of 84 square meters.



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Practice

Integration: Geometry Perimeter and Area

Find the perimeter and area of each figure.

