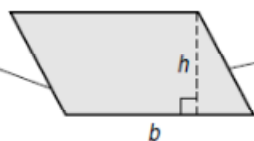


11-1 Study Guide and Intervention**Area of Parallelograms**

The area A of a parallelogram equals the product of its base b and its height h .

$$A = bh$$

The **base** is any side of a parallelogram.



The **height** is the length of the segment perpendicular to the base with endpoints on opposite sides.

Example 1 Find the area of a parallelogram if the base is 6 inches and the height is 3.7 inches.

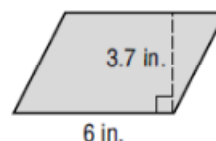
Estimate $A = 6 \cdot 4$ or 24 in^2

$A = bh$ Area of a parallelogram

$A = 6 \cdot 3.7$ Replace b with 6 and h with 3.7.

$A = 22.2$ Multiply.

The area of the parallelogram is 22.2 square inches. This is close to the estimate.



Example 2 Find the area of the parallelogram at the right.

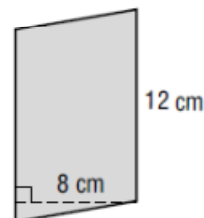
Estimate $A = 10 \cdot 10$ or 100 cm^2

$A = bh$ Area of a parallelogram

$A = 12 \cdot 8$ Replace b with 12 and h with 8.

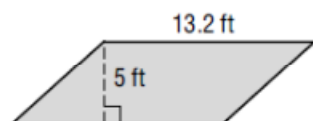
$A = 96$ Multiply.

The area of the parallelogram is 96 square centimeters. This is close to the estimate.

**Exercises**

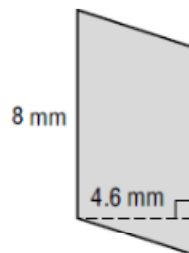
Find the area of each parallelogram. Round to the nearest tenth if necessary.

1.



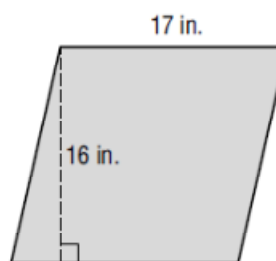
$$66 \text{ ft}^2$$

2.



$$36.8 \text{ mm}^2$$

3.



$$272 \text{ in}^2$$