Vocabulary

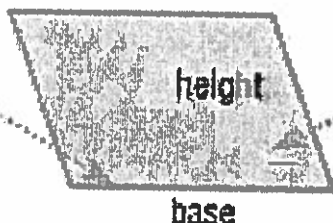_polygon_ – closed figure formed by 3 or more straight line segments.

parallelogram – quadrilateral with opposite sides parallel and opposite sides the same length.

Rhombus – a parallelogram with four equal sides.

Key Concepts: Parallelogram

$$Area = base \bullet height \quad OR \quad (A = b \bullet h)$$

The **base** of a parallelogram can be any one of its sides.

height

base

The **height** is the perpendicular distance from the base to the opposite side.

Step:
1.) Write the formula.
2.) Fill in the numbers.
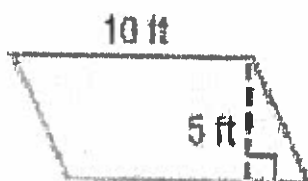3.) Answer.

Guided Practice:
Find the area of each parallelogram.

* don't use slanted height

10 ft

5 ft

8 m

7 m

11 m

$A = b \cdot h$
$A = 6 \cdot 2$
$\boxed{A = 12 \; units^2}$

$A = b \cdot h$
$A = 10 \, ft \cdot 5 \, ft$
$\boxed{A = 50 \; ft^2}$

$A = b \cdot h$
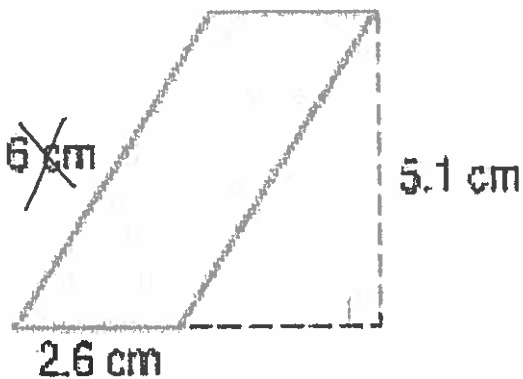$A = 11 m \cdot 7 m$
$\boxed{A = 77 m^2}$

4.) Find the (height) of a parallelogram if its base is 35 centimeters and its area is 700 square centimeters.

$$A = b \cdot h$$
$$700 \text{ cm}^2 = (35 \text{ cm} \cdot) h$$
$$\div 35 \text{ cm} \qquad \div 35 \text{ cm}$$

$$\boxed{20 \text{ cm} = h}$$

Partner Talk

The size of the parallelogram piece in a set of tangrams is shown at the right. Find the (area) of the piece.

6 cm

5.1 cm

2.6 cm

$$A = b \cdot h$$
$$A = 2.6 \text{ cm} \cdot 5.1 \text{ cm}$$
$$\boxed{A = 13.26 \text{ cm}^2}$$

Building on the Essential Question – How are parallelograms related to rectangles and triangles?

* A rectangle is a type of parallelogram.

* A triangle is half a parallelogram.

Rate Yourself – Are you ready to move on?   YES   or   NO

↑
triangle

⌐ Rate
yourself!