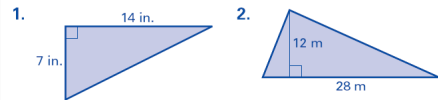


8.5 Area of Parallelograms

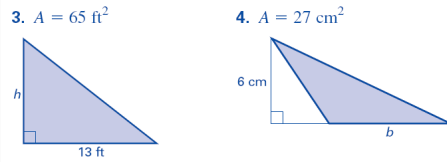
Goal: To be able to find the area of parallelograms

Warm Up

Find the area of the triangle.



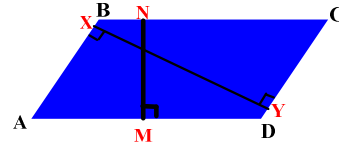
In Exercises 3 and 4, A gives the area of the triangle. Find the missing measure.



5. A triangular sail of a boat has a base 5 feet long and the sail has an area of 20 square feet. What is the height of the sail?

Jan 18-11:20 AM

Either pair of parallel sides of a parallelogram are called the **bases of the parallelogram**. The shortest distance between the bases of a parallelogram is called the **height of a parallelogram**.



\overline{MN} is the height between the bases \overline{BC} and \overline{AD} .

\overline{XY} is the height between the bases \overline{AB} and \overline{CD} .

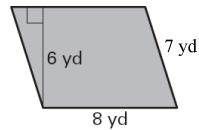
Jan 18-11:26 AM

Area of a Parallelogram: Area = (base)(height)

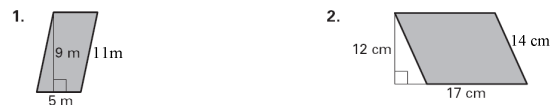
$$A = b h$$

Find the Area of a Parallelogram

Find the area of the parallelogram.



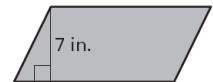
Find the area of the parallelogram.



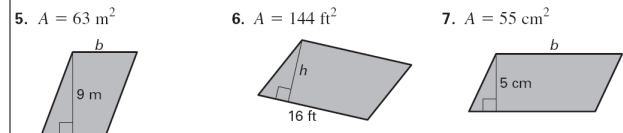
Jan 18-11:35 AM

Find the Base of a Parallelogram

Find the base of the parallelogram given that its area is 105 square inches.



A gives the area of the parallelogram. Find the missing measure.



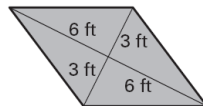
Jan 18-11:44 AM

Area of a Rhombus: Area = $\frac{1}{2}$ (product of diagonals)

$$A = \frac{1}{2} (d_1 d_2)$$

Find the Area of a Rhombus

Find the area of the rhombus.



Find the area of the rhombus.



Jan 18-11:37 AM