

Lesson 5-2 • Apply Day

Reinforce Understanding

Missing Measures in Triangles

I can find the area of a triangle using the formula $A = \frac{1}{2} \times \text{base} \times \text{height}$.

Worked model

A triangle has an area of 150 cm^2 and a perpendicular height of 20 cm. Find the base.

1. Substitute what you know. $A = \frac{1}{2} \times b \times h \rightarrow 150 = \frac{1}{2} \times b \times 20$
2. Undo the half by doubling the area. $2 \times 150 = 300$, so $300 = b \times 20$
3. Divide by the measure you already know. $300 \div 20 = 15$
4. Check by working forward. $\frac{1}{2} \times 15 \times 20 = 150$

Answer: The base of the triangle is 15 centimeters.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. (Lesson 5.1) Find the area of a new parallelogram with base 5 and perpendicular height 3.

Complete each step, then write the final answer.

1. Use the perpendicular height: ____.
2. $\text{Area} = 5 \times 3 =$ ____.

Answer: _____

2. (Lesson 5.1) Find the area of a new parallelogram with base 6 and perpendicular height 5.

Complete each step, then write the final answer.

1. Use the perpendicular height: ____.
2. $\text{Area} = 6 \times 5 =$ ____.

Answer: _____

3. (Lesson 5.1) Find the area of a new parallelogram with base 7 and perpendicular height 7.

Complete each step, then write the final answer.

1. Use the perpendicular height: ____.
2. $\text{Area} = 7 \times 7 =$ ____.

Answer: _____