

Lesson 5-2 • Group 2

Reinforce Understanding

5.2 Small Group • Group 2

I can find the area of a triangle using the formula $A = \frac{1}{2} \times \text{base} \times \text{height}$, explain why the method works, and use it on a problem I have not seen before.

Worked model

A triangle has a base of 16 cm and a perpendicular height of 9 cm. Find the area.

1. Two copies of a triangle form a parallelogram, so a triangle is half of one.
2. Write the formula. $A = \frac{1}{2} \times b \times h$
3. Name the parts. $b = 16 \text{ cm}$ $h = 9 \text{ cm}$, meeting the base at a square corner
4. Multiply, then halve. $16 \times 9 = 144$, and half of 144 is 72

Answer: The area of the triangle is 72 square centimeters (72 cm^2).

Practice

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

1. Complete the table.

Complete the table. Show how you found each value.

Triangle	Base	Height	Area
Garden A	12 ft	8 ft	
Garden B	9 ft		27 sq ft
Garden C		10 ft	35 sq ft
Garden D	15 ft	4 ft	

Show your work
