

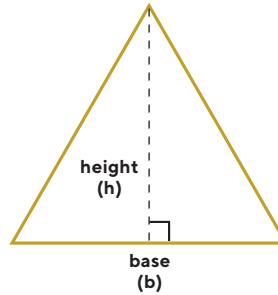


Geometry Detective #1

Area of a Triangle



The **area of a triangle** is one-half the length of the base times the height. The **base** of a triangle can be any one of its sides. The **height** is the distance from a base to its opposite point, or vertex. A base must be perpendicular to the height.



Area of a triangle:
 $\frac{1}{2} \times \text{base} \times \text{height}$

DIRECTIONS: Use the formula for the area of a triangle as shown above to calculate the area for the following triangles in square units. Show your work in the right column.

<p>EXAMPLE:</p>	<p>EXAMPLE:</p> <p>base = 6 + 4 = 10</p> <p>height = 12 + 8 = 20</p> <p>area = $\frac{1}{2} \times 10 \times 20$</p> <p>= 100 units²</p>		<p>base = 5 + 4 + 6 = 15</p> <p>height = 5 + 4 + 6 = 15</p> <p>area = $\frac{1}{2} \times 15 \times 15$</p> <p>= 112.5 or 112 $\frac{1}{2}$ units²</p>
	<p>base = 4 + 5 + 6 = 15</p> <p>height = 8 + 10 + 12 = 30</p> <p>area = $\frac{1}{2} \times 30 \times 15$</p> <p>= 225 units²</p>		<p>base = 3 + 2 + 4 = 9</p> <p>height = 9 + 6 + 12 = 27</p> <p>area = $\frac{1}{2} \times 17 \times 9$</p> <p>= 121.5 or 121 $\frac{1}{2}$ units²</p>