

The background features several large, colorful, abstract swirls in shades of purple, green, and blue. Scattered throughout are numerous small, yellow triangles pointing in various directions, creating a dynamic and festive feel.

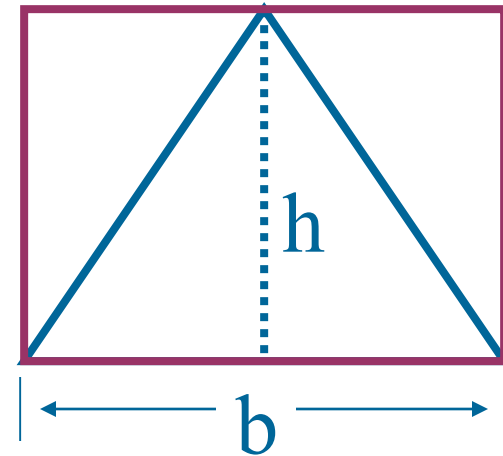
Area: Triangles and Trapezoids

6th Grade Mathematics
Mr. Wong

Area of a Triangle

$$\text{Area} = 1/2 \cdot \text{base} \cdot \text{height}$$

$$\text{Area} = 1/2 \cdot b \cdot h$$



The area of a triangle is half that of a rectangle.

Ex. 1 Find the area of the triangle.

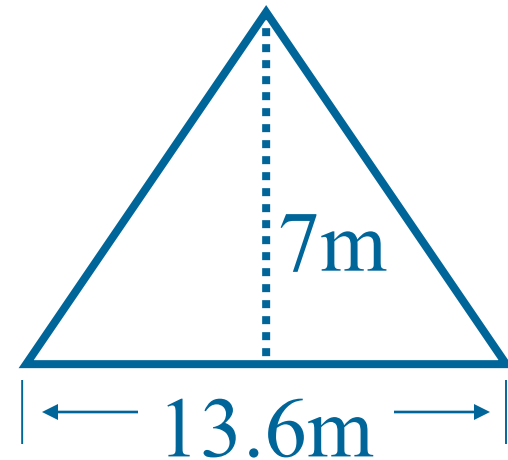
$$\text{Area} = 1/2 \cdot \text{base} \cdot \text{height}$$

$$\text{Area} = 1/2 \cdot b \cdot h$$

$$\text{Area} = 1/2 \cdot 13.6 \cdot 7$$

$$\text{Area} = 6.8 \cdot 7$$

$$\text{Area} = 47.6 \text{ m}^2$$



Ex. 2 Find the area of the triangle.

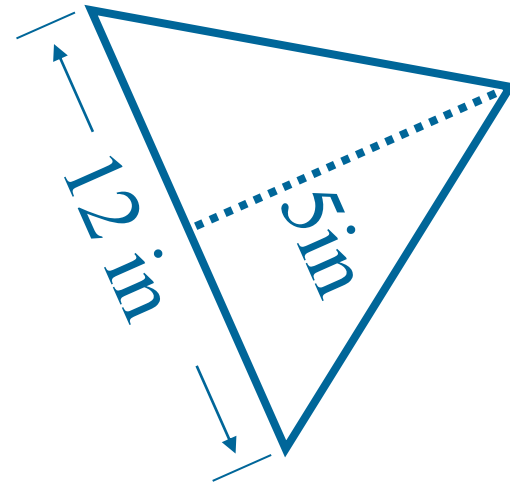
$$\text{Area} = 1/2 \cdot \text{base} \cdot \text{height}$$

$$\text{Area} = 1/2 \cdot b \cdot h$$

$$\text{Area} = 1/2 \cdot 12 \cdot 5$$

$$\text{Area} = 6 \cdot 5$$

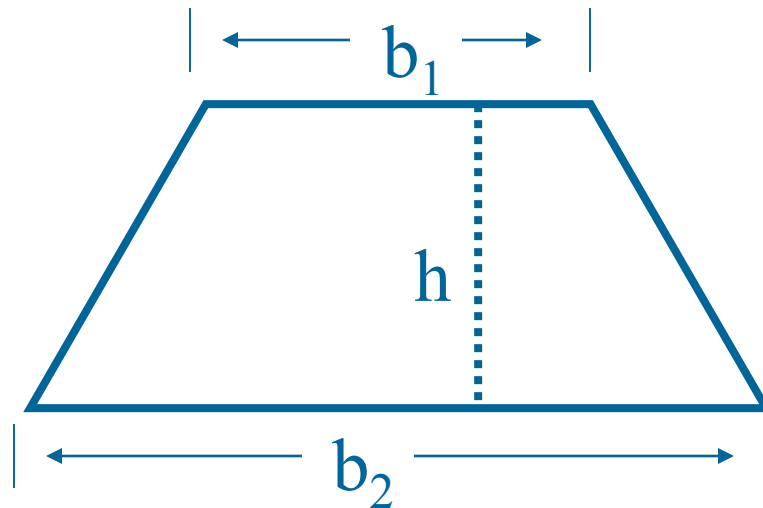
$$\text{Area} = 30 \text{ in}^2$$



Area of a Trapezoid

$$\text{Area} = 1/2 \cdot \text{height} \cdot (\text{base}_1 + \text{base}_2)$$

$$\text{Area} = 1/2 \cdot h \cdot (b_1 + b_2)$$



Ex. 3 Find the area of the Trapezoid.

$$\text{Area} = 1/2 \cdot \text{height} \cdot (\text{base}_1 + \text{base}_2)$$

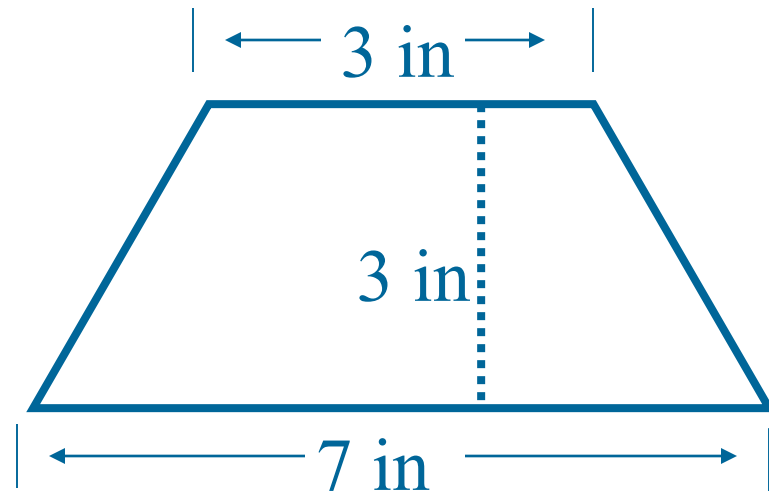
$$\text{Area} = 1/2 \cdot h \cdot (b_1 + b_2)$$

$$\text{Area} = 1/2 \cdot 3 \cdot (3 + 7)$$

$$\text{Area} = 1/2 \cdot 3 \cdot (10)$$

$$\text{Area} = 1.5 \cdot (10)$$

$$\text{Area} = 15 \text{ in}^2$$



Ex. 4 Find the area of the Trapezoid.

$$\text{Area} = 1/2 \cdot \text{height} \cdot (\text{base}_1 + \text{base}_2)$$

$$\text{Area} = 1/2 \cdot h \cdot (b_1 + b_2)$$

$$\text{Area} = 1/2 \cdot 9 \cdot (4 + 10)$$

$$\text{Area} = 1/2 \cdot 9 \cdot (14)$$

$$\text{Area} = 4.5 \cdot (14)$$

$$\text{Area} = 63 \text{ m}^2$$

