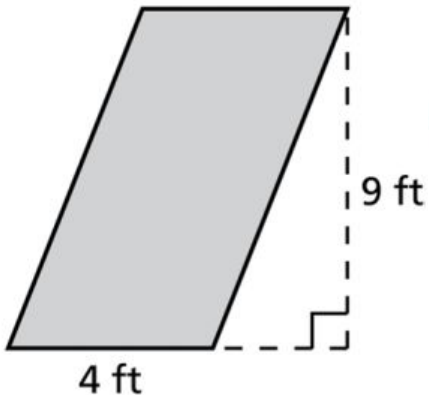


# Area of a Parallelogram

$$A = b \cdot h$$



$$\begin{aligned} A &= bh \\ &= (4)(9) \\ &= 36 \end{aligned}$$

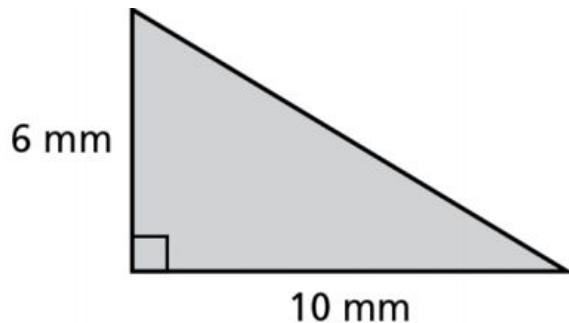
Write the formula for area of a parallelogram.

Substitute 4 for  $b$  and 9 for  $h$ .

Multiply.

# Area of a Triangle

$$A = \frac{1}{2}(b \cdot h)$$



The base of the triangle is 10 millimeters, and the height is 6 millimeters.

$$A = \frac{1}{2}bh \quad \text{Write the formula for the area of a triangle.}$$

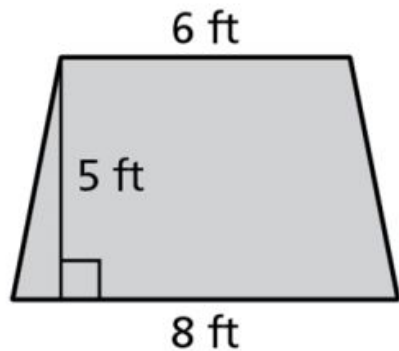
$$= \frac{1}{2}(10)(6) \quad \text{Substitute 10 for } b \text{ and 6 for } h.$$

$$= 5(6) \quad \text{Multiply } \frac{1}{2} \text{ and 10.}$$

$$= 30 \quad \text{Multiply 5 and 6.}$$

# Area of a Trapezoid

$$A = \frac{1}{2} (b_1 + b_2) \cdot h$$



$$A = \frac{1}{2} h (b_1 + b_2)$$

Write the formula for the area of a trapezoid.

$$= \frac{1}{2} (5)(6 + 8)$$

Substitute 5 for  $h$ , 6 for  $b_1$ , and 8 for  $b_2$ .

$$= \frac{1}{2} (5)(14)$$

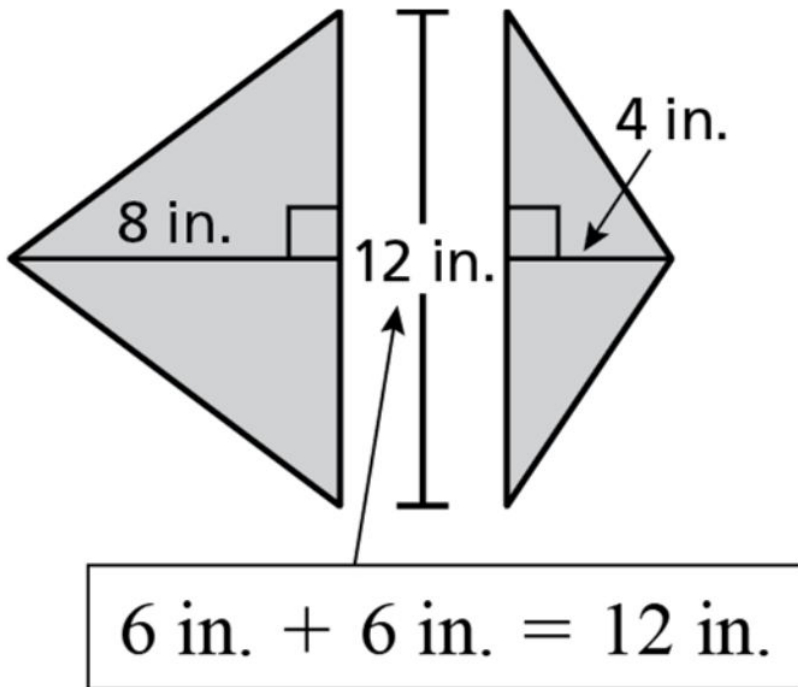
Add 6 and 8.

$$= 35$$

Multiply.

# Area of a Kite

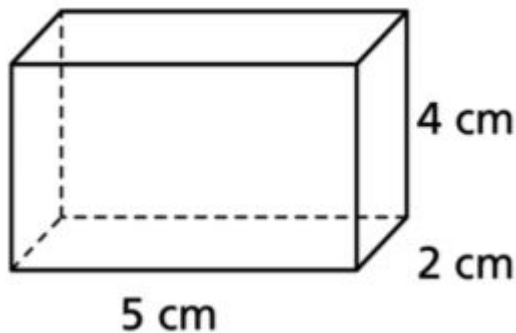
**Decompose the kite into two triangles. Find the sum of the areas of the triangles.**



$$\begin{aligned} A &= \frac{1}{2}bh + \frac{1}{2}bh \\ &= \frac{1}{2}(12)(8) + \frac{1}{2}(12)(4) \\ &= 48 + 24 \\ &= 72 \end{aligned}$$

# Area of a Rectangular Prism

Add the area of all sides



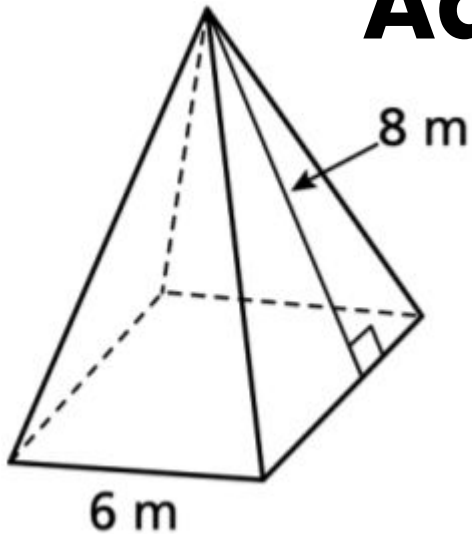
$$\begin{aligned}\text{Top: } & 5 \cdot 2 = 10 \\ \text{Bottom: } & 5 \cdot 2 = 10 \\ \text{Front: } & 5 \cdot 4 = 20 \\ \text{Back: } & 5 \cdot 4 = 20 \\ \text{Side: } & 2 \cdot 4 = 8 \\ \text{Side: } & 2 \cdot 4 = 8\end{aligned}$$

$$\left( \begin{array}{c} \text{Surface} \\ \text{Area} \end{array} \right) = \left( \begin{array}{c} \text{Area of} \\ \text{top} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{bottom} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{front} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{back} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right)$$

$$\begin{aligned}S &= 10 + 10 + 20 + 20 + 8 + 8 \\ &= 76\end{aligned}$$

# Area of a Pyramid

**Add the area of all sides**



$$\text{Bottom: } 6 \cdot 6 = 36$$

$$\text{Side: } \frac{1}{2} \cdot 6 \cdot 8 = 24$$

$$\text{Side: } \frac{1}{2} \cdot 6 \cdot 8 = 24$$

$$\text{Side: } \frac{1}{2} \cdot 6 \cdot 8 = 24$$

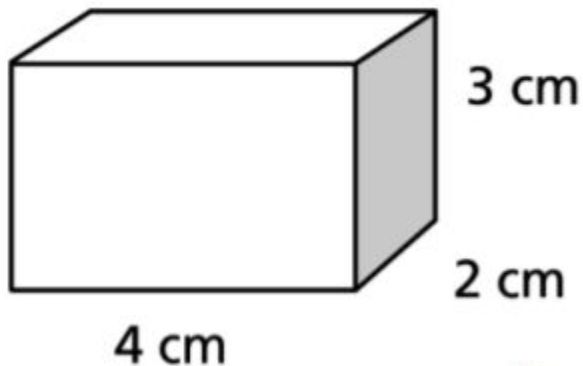
$$\text{Side: } \frac{1}{2} \cdot 6 \cdot 8 = 24$$

$$\left( \begin{array}{c} \text{Surface} \\ \text{Area} \end{array} \right) = \left( \begin{array}{c} \text{Area of} \\ \text{bottom} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right) + \left( \begin{array}{c} \text{Area of} \\ \text{a side} \end{array} \right)$$

$$\begin{aligned} S &= 36 + 24 + 24 + 24 + 24 \\ &= 132 \end{aligned}$$

# Volume of a Rectangular Prism

$$V = l \cdot w \cdot h$$



$$V = lwh$$

$$= (4)(2)(3)$$

$$= 24$$

Write the formula for the volume of a rectangular prism.

Substitute 4 for  $l$ , 2 for  $w$ , and 3 for  $h$ .

Multiply.