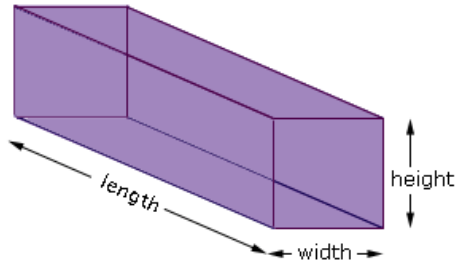
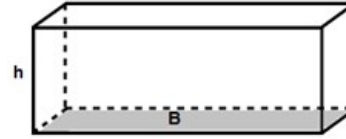


# Volume of a Rectangular Prism



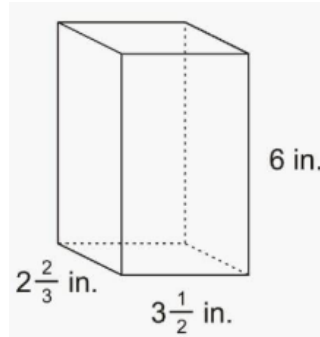
$$V = l \cdot w \cdot h$$



$$V = B \cdot h$$

$B = \text{Area of the Base}$

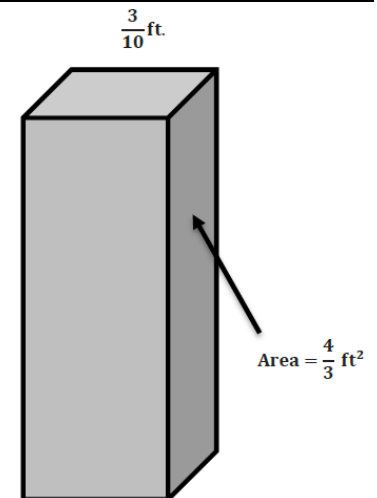
1. Find the Volume of the Rectangular Prism



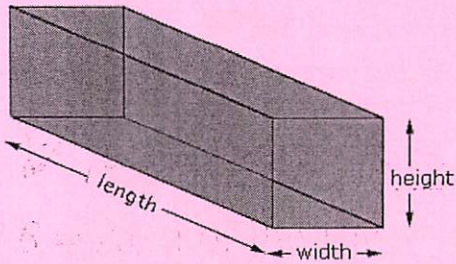
1. The area of the base of a rectangular prism is  $12 \text{ cm}^2$  and the height is  $3\frac{1}{3} \text{ cm}$ . Determine the volume of the rectangular prism.

2. A pet carrier company is creating a new size carrier in the shape of a rectangular prism. It has a width of 27 cm, a length of 7 cm, and a volume of 6,426 cubic cm. Find the height.

2. Calculate the Volume.

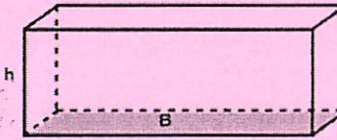


# Volume of a Rectangular Prism



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

$B = \text{Area of the Base}$



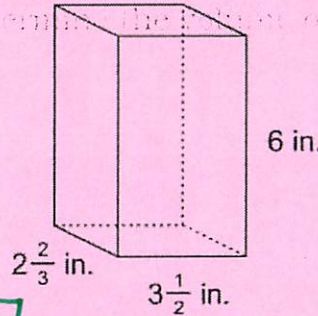
$$V = \overbrace{B}^{l \cdot w} \cdot h$$

$B = \text{Area of the Base}$

1. Find the Volume of the Rectangular Prism

$$V = 2\frac{2}{3} \cdot 3\frac{1}{2} \cdot \frac{6}{1}$$

$$V = \frac{4}{1} \frac{8}{3} \cdot \frac{7}{2} \cdot \frac{6}{1} = \frac{56}{1}$$



$$V = 56 \text{ in}^3$$

1. The area of the base of a rectangular prism is  $12 \text{ cm}^2$  and the height is  $3\frac{1}{3} \text{ cm}$ . Determine the volume of the rectangular prism.

$$V = 12 \cdot 3\frac{1}{3}$$

$$V = \frac{4}{1} \frac{12}{1} \cdot \frac{10}{3}$$

$$V = 40 \text{ cm}^3$$

2. A pet carrier company is creating a new size carrier in the shape of a rectangular prism. It has a width of 27 cm, a length of 7 cm, and a volume of 6,426 cubic cm. Find the height.

$$6,426 = 7 \cdot 27 \cdot h$$

$$6426 \div 189 = 189 \cdot h \div 189$$

$$34 = h$$

$$h = 34 \text{ cm}$$

2. Calculate the Volume.

$$V = \frac{2}{1} \frac{4}{3} \cdot \frac{3}{10} \frac{1}{5}$$

$$V = \frac{2}{5} \text{ ft}^3$$

