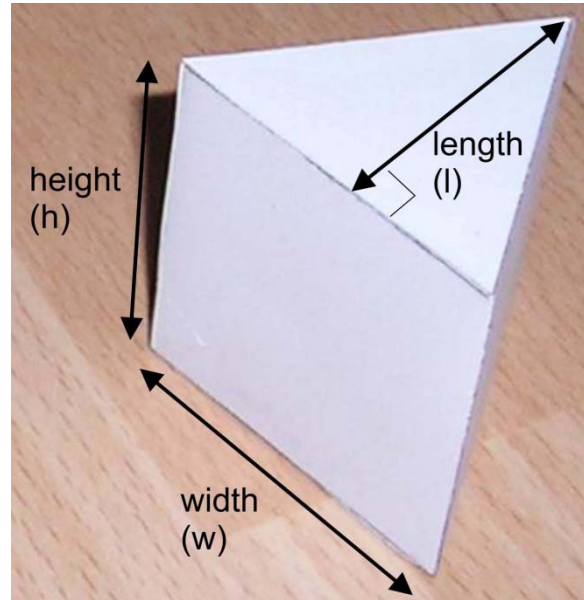


10.2 Volume of a Triangular Prism



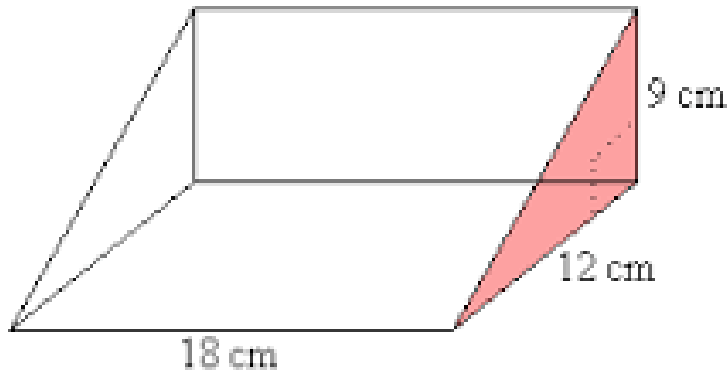
Volume of a Triangular Prism



Volume = The product of the base area B and the height h

$$V = B \cdot h \text{ or } V = Bh$$

Note: B is the base area of the triangle



Volume

Find the volume

- 1) Find the **base area B** (area of a triangle)

$$B = 1/2 \cdot b \cdot h$$

$$B = 1/2 \cdot 12 \text{ cm} \cdot 9 \text{ cm}$$

$$B = 54 \text{ cm}^2$$

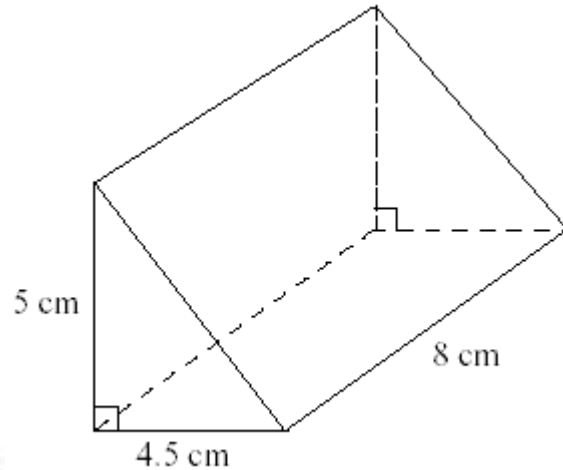
- 2) Use the **base area B** to find the volume

$$V = B \cdot h$$

$$V = 54 \text{ cm}^2 \cdot 18 \text{ cm}$$

$$V = 972 \text{ cm}^3$$

Find the volume of the triangular prism



$$B = 1/2 \cdot b \cdot h$$

$$B = 1/2 \cdot 4.5 \text{ cm} \cdot 5 \text{ cm}$$

$$B = 11.25 \text{ cm}^2$$

$$V = B \cdot h$$

$$V = 11.25 \text{ cm}^2 \cdot 8 \text{ cm}$$

$$V = 90 \text{ cm}^3$$

Find the height of the triangular prism

A candle is in the shape of a triangular prism. The base has an area of 48 square inches. The candle has a height of 6 inches. Find the volume.

$$V = B \cdot h$$

$$V = 48 \text{ in}^2 \cdot 6 \text{ in}$$

$$V = 288 \text{ in}^3$$