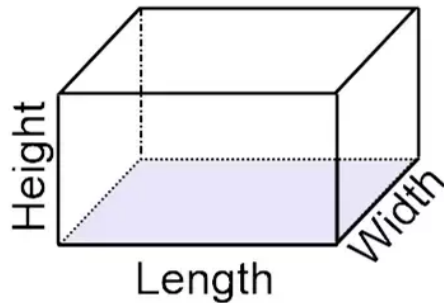


Solving for the Volume of a Right Prism (Area of the Base multiplied by Height)

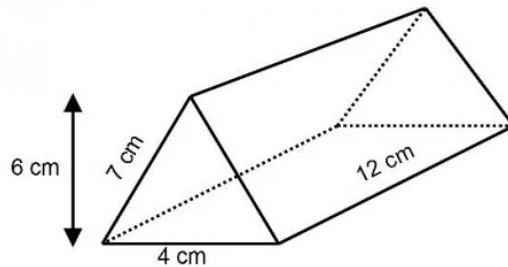
When solving for the volume of a **rectangular prism**, we must consider its three dimensions: the length, the width and the height.



We will need measurements for all three if we want to solve for its volume. The formula we will use is an adaptation of the idea of “*area of the base $\times$ height*”.

$$V = lwh$$

When solving for the volume of a triangular prism, we still need to consider its dimensions: the dimensions of the triangular base (base and height) and the height of the prism itself when it stands on a triangular face.



We would use the following formula:

$$V = \left[\frac{bh}{2} \right] h$$

The ‘h’ in brackets refers to the height of the triangle (base), while the ‘h’ outside of the brackets refers to the height of the prism.

Consider the following example:

Solve for the volume of the given rectangular prism to the right. Please use:

- ☐ **A formula**
- ☐ **Substitution**
- ☐ **Calculation with proper units**

$$\begin{aligned} V &= lwh \\ V &= 3 \cdot 4 \cdot 5 \\ V &= 60 \text{ cm}^3 \end{aligned}$$

Remember to **cube** your units because volume is three dimensional.

