

Volume of Right Prisms

April 8, 2024

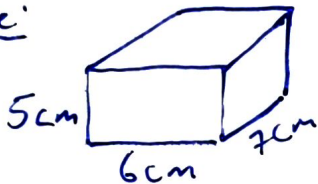
Reminder: $V = A_{\text{base}} \times h$

$$V = A_B \times h$$

Rectangular Prisms:

$$V_{\square} = l \times w \times h$$

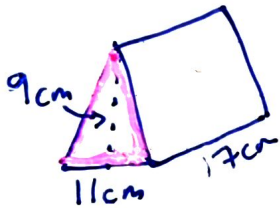
Example:



$$\begin{aligned} V_{\square} &= l \times w \times h \\ &= (6)(7)(5) \\ &= (42)(5) \\ &= 210 \text{ cm}^3 \end{aligned}$$

Triangular Prisms:

$$V_{\Delta} = \frac{\text{base} \times h}{2}$$



Example:

$$\begin{aligned} V_{\Delta} &= \frac{\text{base} \times h}{2} \\ &= \frac{(11)(9)(17)}{2} \\ &= \frac{(99)(17)}{2} \\ &= \frac{1683}{2} \\ &= 841.5 \text{ cm}^3 \end{aligned}$$

Example:



$$\begin{aligned} V &= A_B \times h \\ &= (27)(10) \\ &= 270 \text{ m}^3 \end{aligned}$$