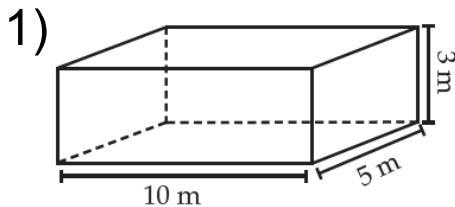


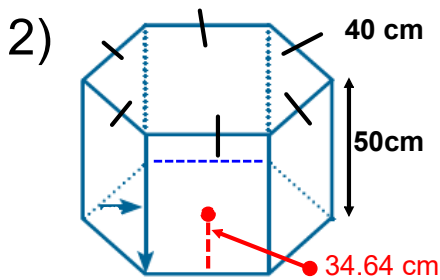
Volume of Prisms

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

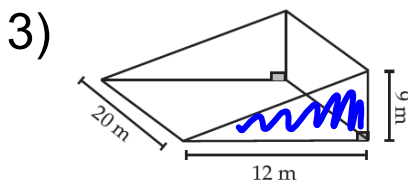
Find the volume of the following solids:



$$\begin{aligned} V &= L \cdot w \cdot h \\ &= 10 \cdot 5 \cdot 3 \\ &= 150 \text{ m}^3 \end{aligned}$$



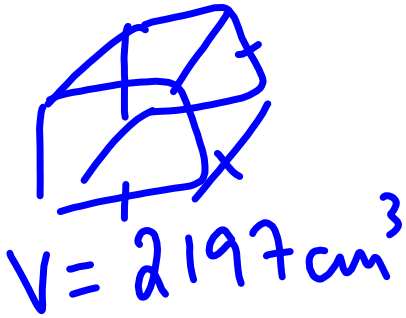
$$\begin{aligned} V &= A_b \cdot h \\ &= \frac{p \cdot a}{2} \cdot h \\ &= \frac{(40 \cdot 6)(34.64) \cdot 50}{2} \\ &= 207840 \text{ cm}^3 \end{aligned}$$



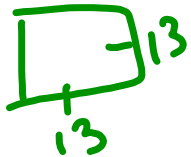
$$\begin{aligned} V &= A_b \cdot h \\ &= \frac{12 \cdot 9}{2} \cdot 20 \\ &= 1080 \text{ m}^3 \end{aligned}$$

Volume Backwards

- 1) A cube has a volume of 2197 cm^3 . What is the total surface area of this cube?

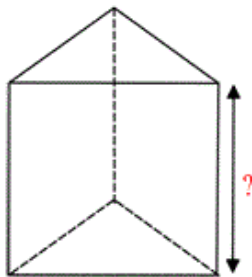


$$\begin{aligned} \textcircled{1} \quad V &= S^3 \\ 2197 &= S^3 \\ \sqrt[3]{2197} &= S \\ S &= 13 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \text{ Surface Area} &= 6 \cdot S^2 \\ &= 6 \cdot (13)^2 \\ &= 1014 \text{ cm}^2 \end{aligned}$$


A small hand-drawn green square with side length 13, representing the side length of the cube's faces.

2)



Volume of the prism = 400 m^3

Area of the base = 40 m^2

$$\begin{aligned} V &= A_b \cdot h \\ \frac{400}{40} &= \frac{40 \cdot h}{40} \\ h &= 10 \text{ m} \end{aligned}$$