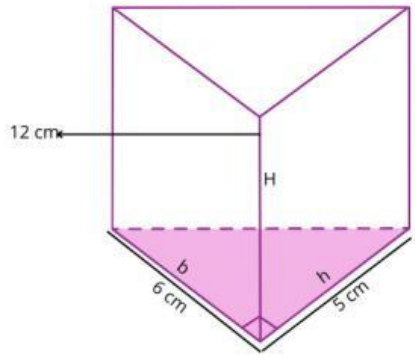
Calculating Volume:
Prisms

A **triangular prism** has a triangular base with a base of 6 cm and a height of 5 cm. The height of the prism is 12 cm.



First, we need to know the **Base Area:**

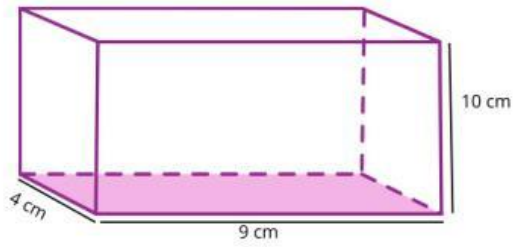
$$BA = \frac{b \times h}{2}$$
$$= \frac{6 \times 5}{2}$$
$$= \frac{30}{2}$$
$$= 15\ cm^2$$

Now, the **second** step: calculate the **Volume** using the base area.

$$V = BA \times H$$
$$= 15 \times 12$$
$$= 180\ cm^3$$

Now, it's your turn. **Calculate** both the **base area** and the **volume** of the prisms below.

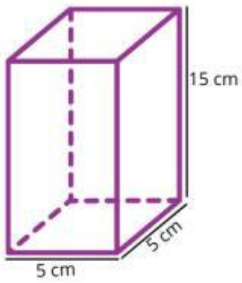
A **rectangular prism** has a base that is 9 cm long and 4 cm wide. The height of the prism is 10 cm.



What is its volume?

What is its base area?

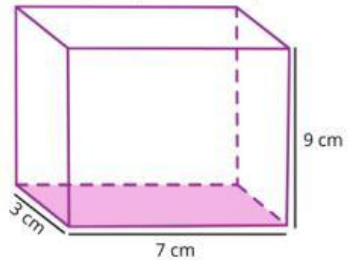
A **quadrangular prism** has a square base with 5cm sides. The height of the prism is 15 cm.



What is its base area?

What is its volume?

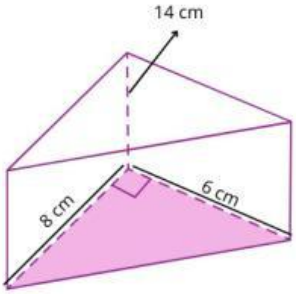
A **rectangular prism** has a base that is 7 cm long and 3 cm wide. The height of the prism is 9 cm.



What is its base area?

What is its volume?

A **triangular prism** has a base that is 8 cm long and 6 cm tall. The height of the prism is 14 cm.



What is its base area?

What is its volume?

LIVEWORKSHEETS