

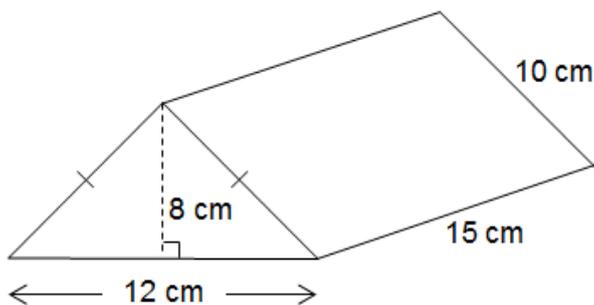
## Surface Area and Volume Worksheet

1. Find the volume of a cube with side length 6 cm.

$$6 \times 6 \times 6 = 216 \text{ cm}^3$$

Indicated a sound understanding of the volume of a cube and provided the correct units

2. Find the surface area of this triangular prism.

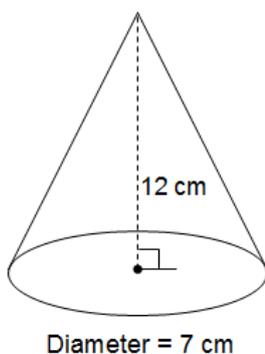


$$\frac{1}{2} \times 8 \times 12 = 48 \text{ cm}^2$$

$$SA = 2(48 \times 15 + 15 \times 10 + 48 \times 10) \\ = 2700 \text{ cm}^3$$

Indicated some understanding of the process to calculate the surface area of the triangular prism despite calculation errors

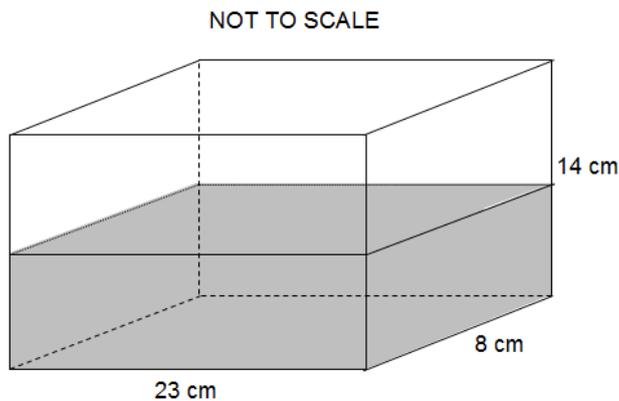
3. Find the volume of this cone to the nearest  $\text{cm}^3$ .



$$\frac{1}{3} \times 12 \times 7 \\ = 28 \text{ cm}^3$$

Indicated some knowledge of the volume of a cone

4.



1000 mL of water is poured into the container shown in the diagram above.

(a) What is the volume of the container?

$$14 \times 23 \times 8 = 2576 \text{ cm}^3$$

(b) What volume of water is required to fill the container?

$$2576 \div 2 = 1288 \text{ cm}^3$$

Correctly calculated the volume of the container and used the correct units

### Grade Commentary

Drew has demonstrated a basic knowledge and understanding of surface area and volume. The formulae have been applied correctly to calculate the volume of a cube and rectangular prism. Drew has calculated the area of basic shapes, however has experienced difficulties finding the surface area of the triangular prism. This work sample demonstrated characteristics of work typically produced by a student performing at a grade D3 level.