

1.

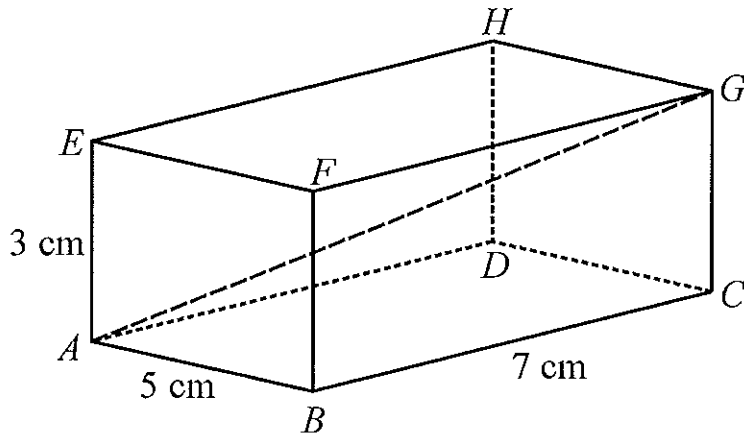


Diagram NOT accurately drawn

The diagram represents a cuboid $ABCDEFGH$.

$$AB = 5 \text{ cm.}$$

$$BC = 7 \text{ cm.}$$

$$AE = 3 \text{ cm.}$$

Calculate the length of AG .

Give your answer correct to 3 significant figures.

$$\begin{aligned} & \sqrt{5^2 + 7^2 + 3^2} \\ &= \sqrt{83} \\ &= 9.11 \text{ cm (3sf)} \end{aligned}$$

..... 9.11 cm

(3)

2. A cuboid has length 3 cm, width 4 cm and height 12 cm.

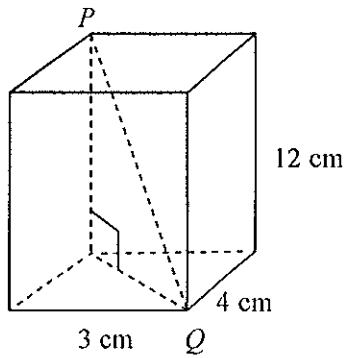


Diagram **NOT**
accurately drawn

Work out the length of PQ .

$$\sqrt{3^2 + 4^2 + 12^2}$$
$$= 13$$

..... 13 cm
(Total 3 marks)

3. The diagram shows a pyramid. The apex of the pyramid is V .
Each of the sloping edges is of length 6 cm.

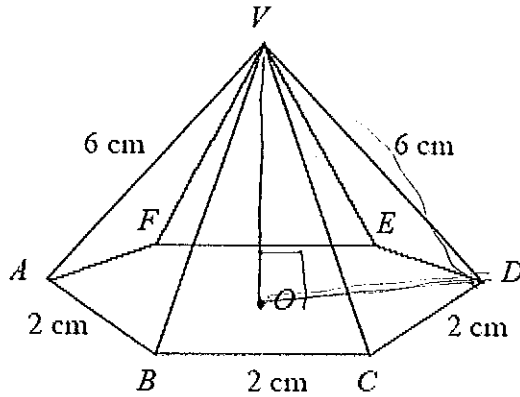


Diagram NOT accurately drawn

The base of the pyramid is a regular hexagon with sides of length 2 cm.
 O is the centre of the base.

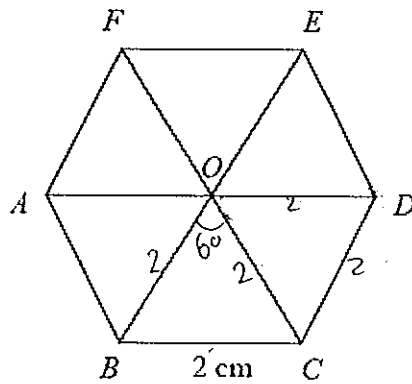
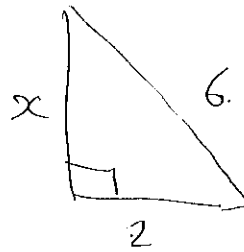


Diagram NOT accurately drawn

Calculate the height of V above the base of the pyramid.
Give your answer correct to 3 significant figures.

$$\sqrt{6^2 - 2^2}$$



$$\dots 5.66 \dots \text{cm}$$

(3)