

# 3d Pythagoras

## Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	3d Pythagoras
Grade Level	Grade 7
Booklet	Mark Scheme

**Time Allowed:** 11 minutes

**Score:** /9

**Percentage:** /100

**Grade Boundaries:**

1.

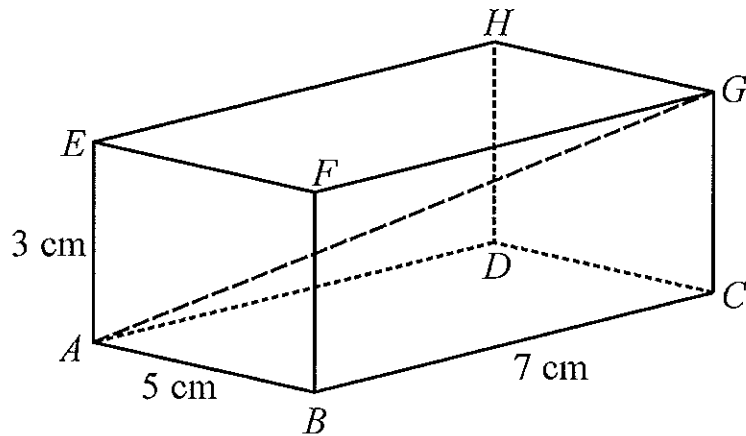


Diagram **NOT**  
accurately drawn

The diagram represents a cuboid  $ABCDEFGH$ .

$AB = 5$  cm.

$BC = 7$  cm.

$AE = 3$  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.

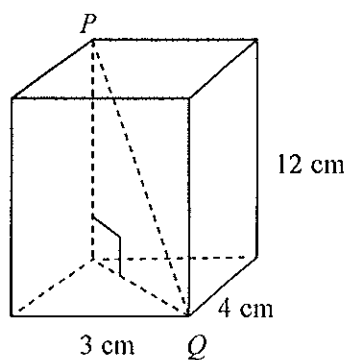


Diagram **NOT**  
accurately drawn

Work out the length of  $PQ$ .

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

$$= 13$$

.....  $\underline{13}$  ..... 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.

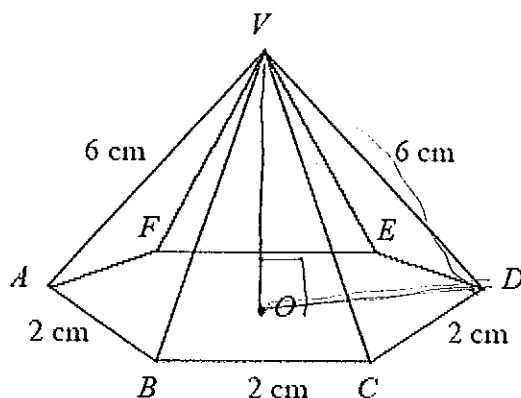


Diagram NOT  
accurately drawn

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

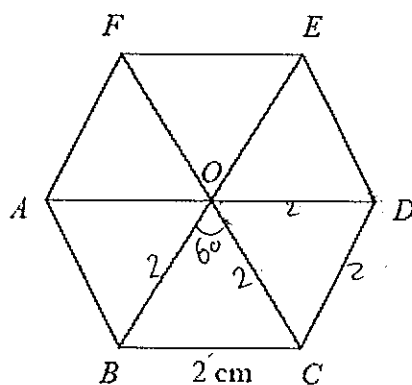
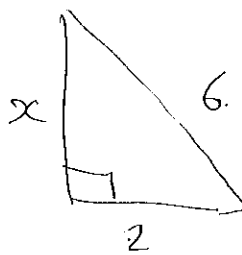


Diagram NOT  
accurately drawn

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

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



.....5.66.....cm

(3)