5

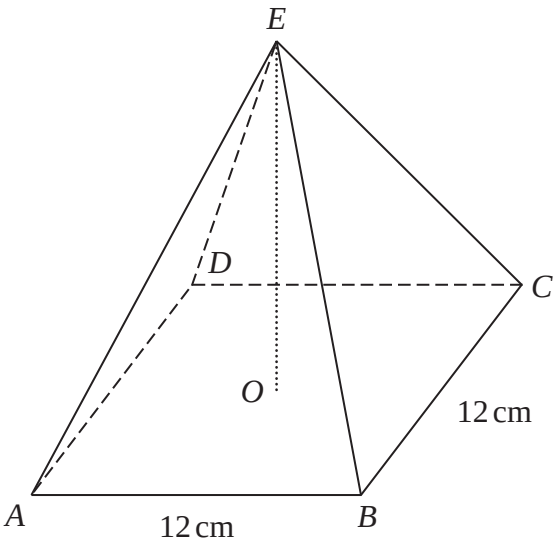

Diagram **NOT** accurately drawn

Figure 2

Figure 2 shows a right pyramid with a square base $ABCD$ and vertex E.

The base of the pyramid is horizontal with $AB = BC = 12$ cm.
The diagonals of the base intersect at the point O.

The vertex E of the pyramid is vertically above O and the angle between EA and the plane $ABCD$ is 30°

The height of the pyramid is h cm.

(a) Find the exact value of h

(3)

The point F lies on AD such that $AF : FD = 1 : 4$

(b) Calculate, to the nearest degree, the size of the angle EFO.

(4)

Question 5 continued

Question 5 continued

Question 5 continued

(Total for Question 5 is 7 marks)