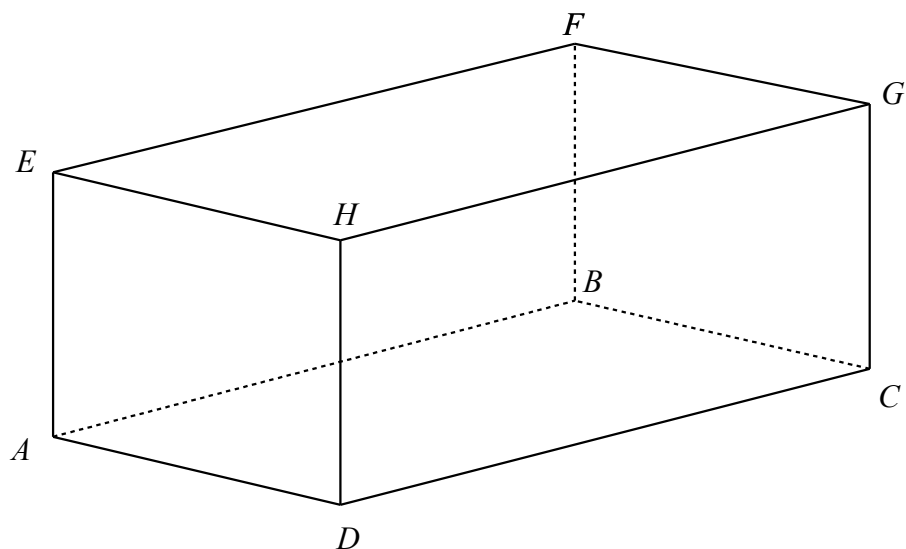


1 The diagram shows a cuboid $ABCDEFGH$.

$$AE = 4 \text{ cm}$$

$$AD = 5 \text{ cm}$$

$$DC = 8 \text{ cm}$$



Calculate the length of AG .
Give your answer correct to 3 significant figures.

..... cm

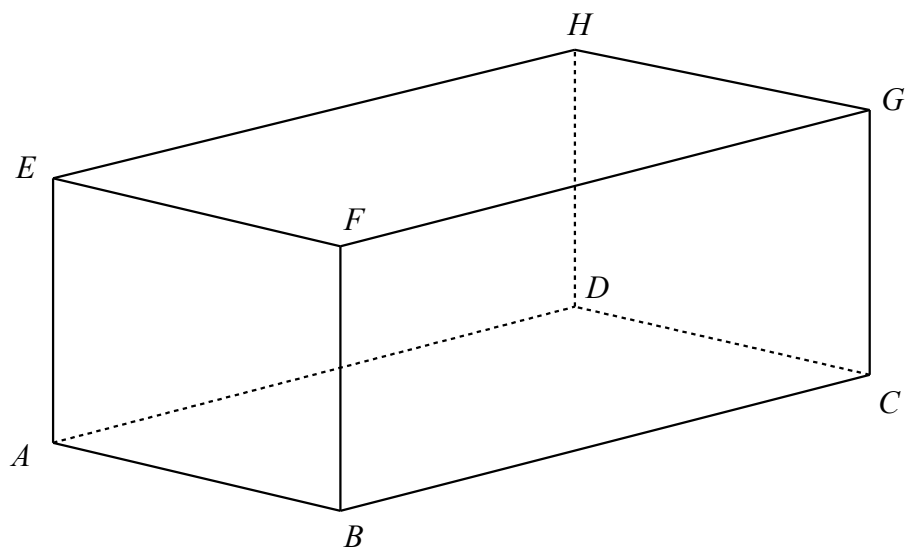
(Total for Question 1 is 3 marks)

2 The diagram shows a cuboid $ABCDEFGH$.

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

$$AE = 6 \text{ cm}$$

$$AG = 12 \text{ cm}$$



Calculate the length of AD .
Give your answer correct to 3 significant figures.

..... cm

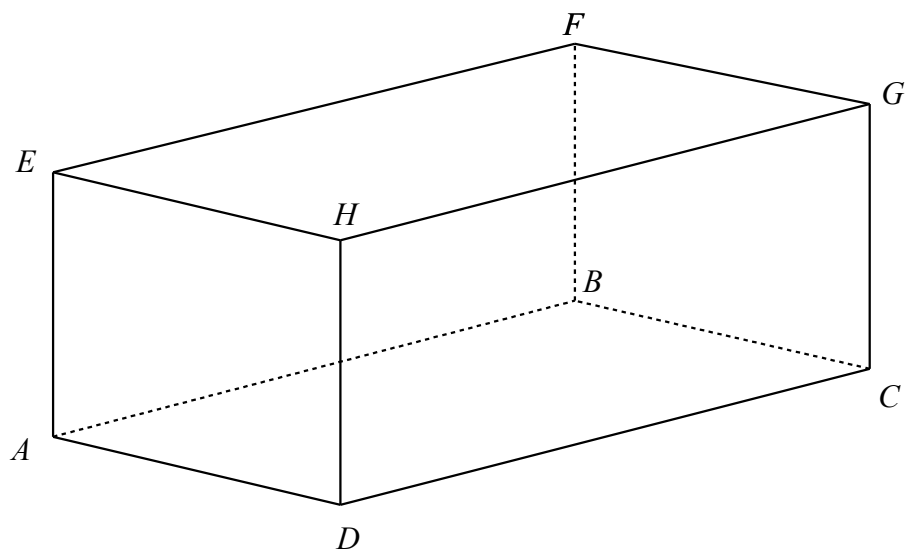
(Total for Question 2 is 4 marks)

3 The diagram shows a cuboid $ABCDEFGH$.

$$AE = 4 \text{ cm}$$

$$AD = 5 \text{ cm}$$

$$DC = 8 \text{ cm}$$



Calculate the size of angle ECA .
Give your answer correct to 3 significant figures.

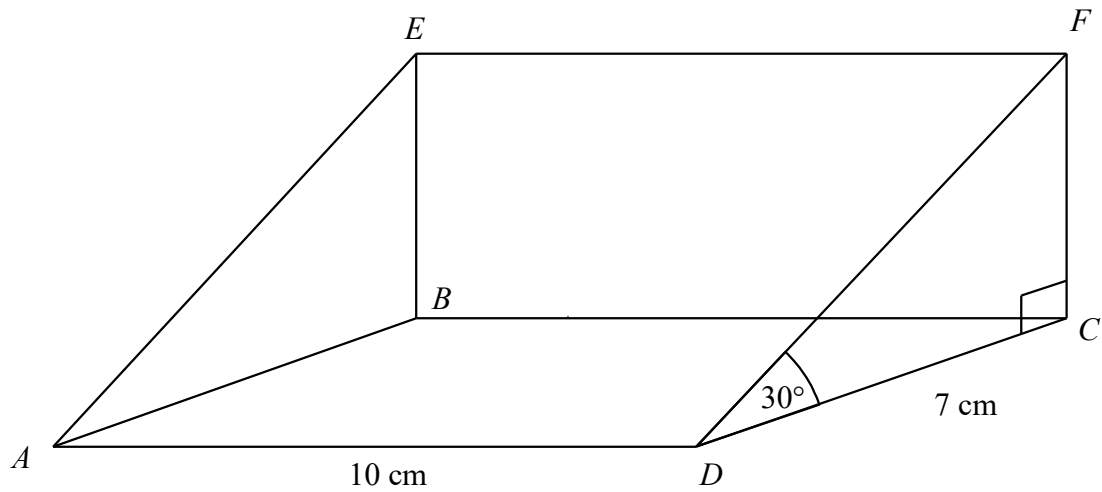
.....
(Total for Question 3 is 4 marks)

- 4 The diagram shows a triangular prism.

$$CD = 7 \text{ cm}$$

$$AD = 10 \text{ cm}$$

$$\text{Angle } FDC = 30^\circ$$



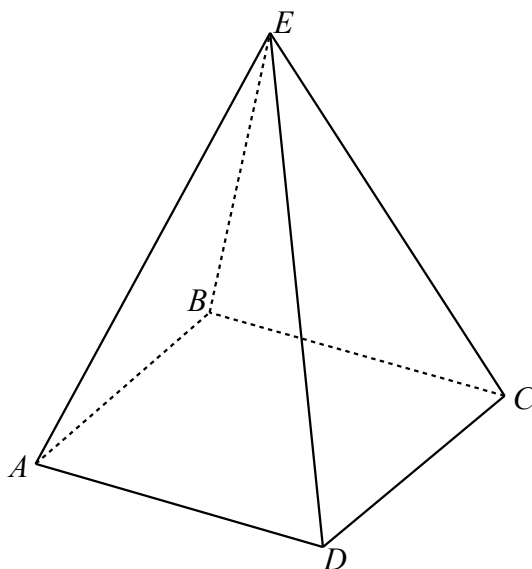
Calculate the size of angle AFC.
Give your answer correct to 1 decimal place.

(Total for Question 4 is 4 marks)

- 5 The diagram shows a pyramid.
The base of the pyramid $ABCD$ is a square.

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

The point E is 10 cm vertically above the base.



Calculate the size of angle EAC .

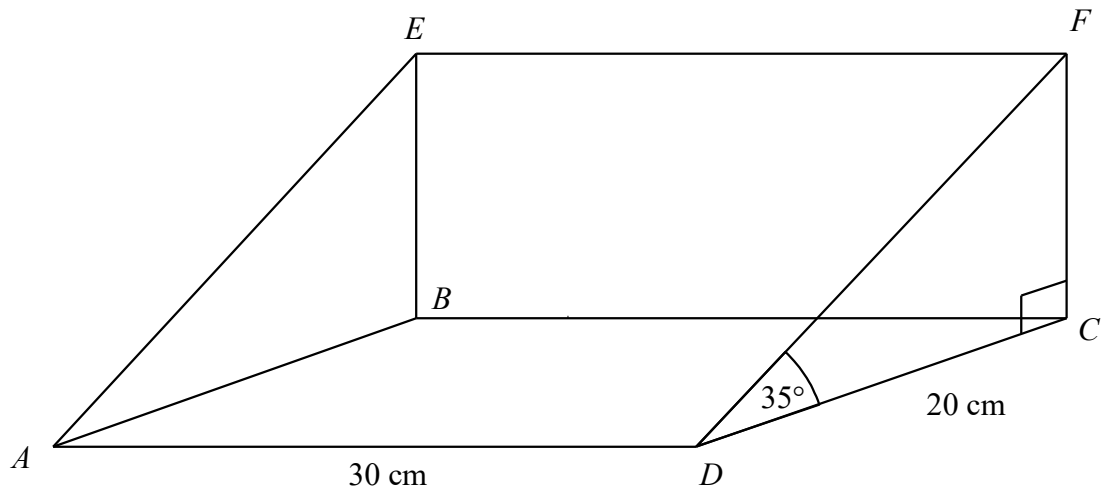
.....
(Total for Question 5 is 4 marks)

6 The diagram shows a triangular prism.

$$CD = 20 \text{ cm}$$

$$AD = 30 \text{ cm}$$

$$\text{Angle } FDC = 35^\circ$$

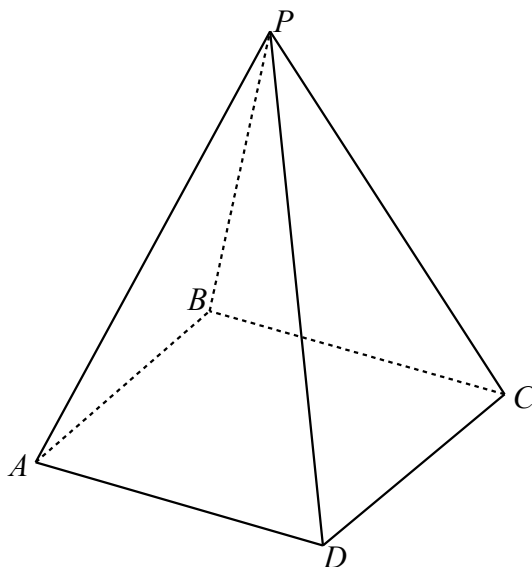


Calculate the size of the angle the line AF makes with the plane $ABCD$.
Give your answer correct to 3 significant figures.

(Total for Question 6 is 4 marks)

- 7 The diagram shows a pyramid.
The base of the pyramid $ABCD$ is a square.

$AB = 15 \text{ cm}$
Angle $PAC = 65^\circ$



Calculate the volume of the pyramid.

..... cm^3
(Total for Question 7 is 5 marks)