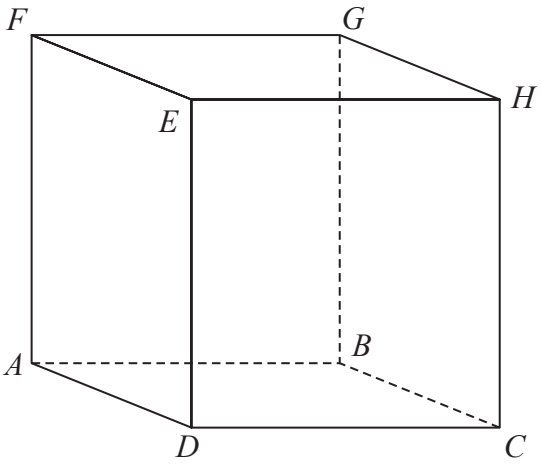
Summer 2018 Paper 2 Q18

1 *ABCDEFGH* is a cuboid.



AB = 7.3 cm
CH = 8.1 cm
Angle *BCA* = 48°

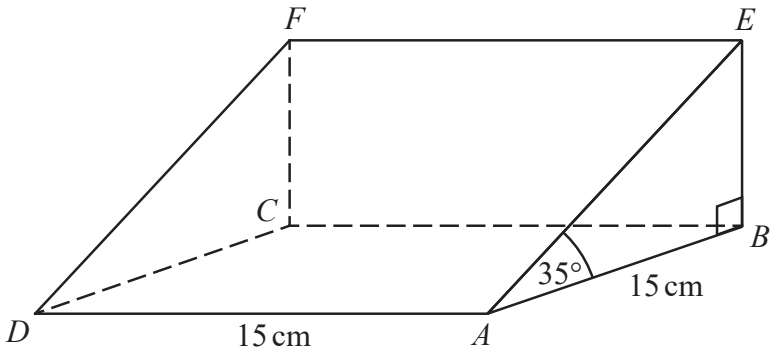
Find the size of the angle between *AH* and the plane *ABCD*.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 1 is 4 marks)

Summer 2019 Paper 2 Q19

2 The diagram shows a triangular prism.



The base, *ABCD*, of the prism is a square of side length 15 cm.
Angle *ABE* and angle *CBE* are right angles.
Angle *EAB* = 35°

M is the point on *DA* such that

$$DM : MA = 2 : 3$$

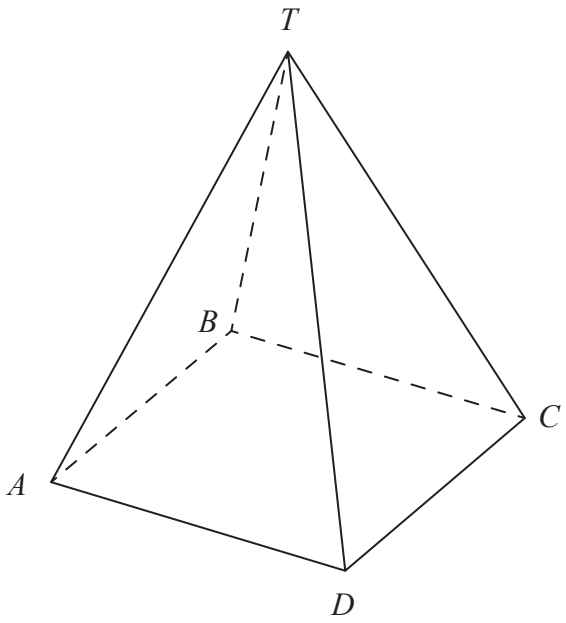
Calculate the size of the angle between *EM* and the base of the prism.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 2 is 4 marks)

Autumn 2018 Paper 3 Q12

3 Here is a pyramid with a square base *ABCD*.



AB = 5 m

The vertex *T* is 12 m vertically above the midpoint of *AC*.

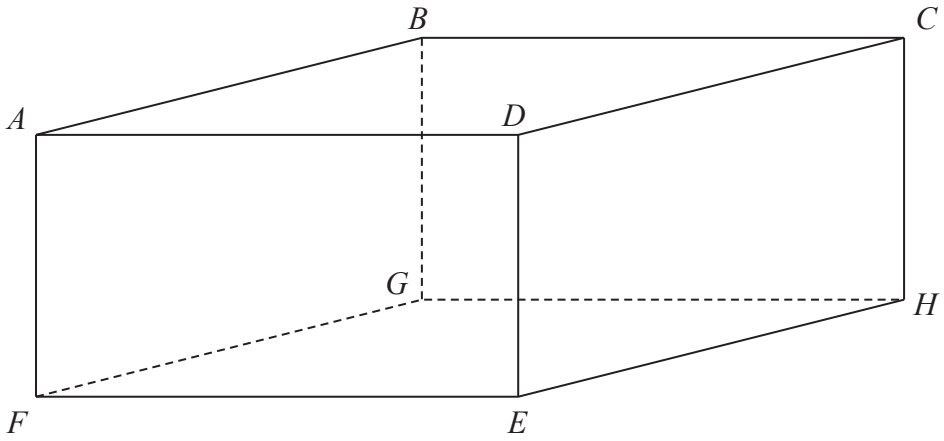
Calculate the size of angle *TAC*.

.....°

(Total for Question 3 is 4 marks)

Autumn 2022 Paper 2 Q20

4 *ABCDEFGH* is a cuboid.



AD = 9 cm
FD = 13 cm
Angle *GHF* = 49°

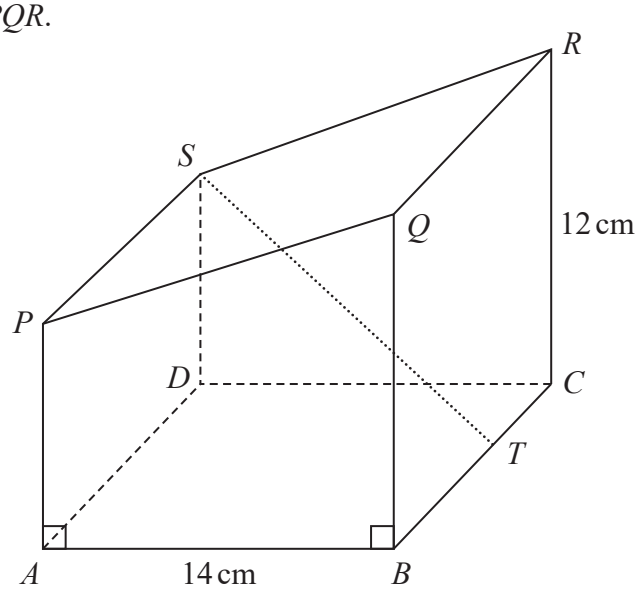
Work out the size of angle *FAH*.
Give your answer correct to the nearest degree.

.....°

(Total for Question 4 is 4 marks)

Summer 2022 Paper 3 Q18

5 Here is a prism *ABCDSPQR*.



The base *ABCD* of the prism is a square of side 14 cm
T is the point on *BC* such that $BT : TC = 4 : 3$

The cross section of the prism is in the shape of a trapezium of area 147 cm^2
$CR = 12$ cm

Find the size of the angle between the line *ST* and the base *ABCD*.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 5 is 5 marks)