1 The diagram shows a right-angled triangle.

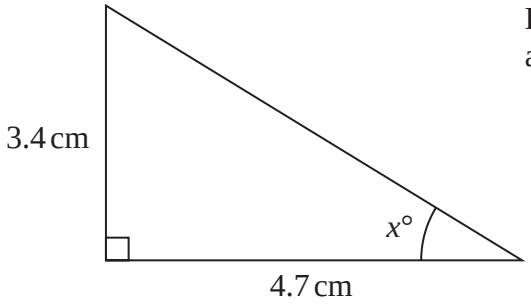

Diagram **NOT** accurately drawn

Calculate the value of x.
Give your answer correct to one decimal place.

x = ...

(Total for Question 1 is 3 marks)

2 Here is a right-angled triangle.

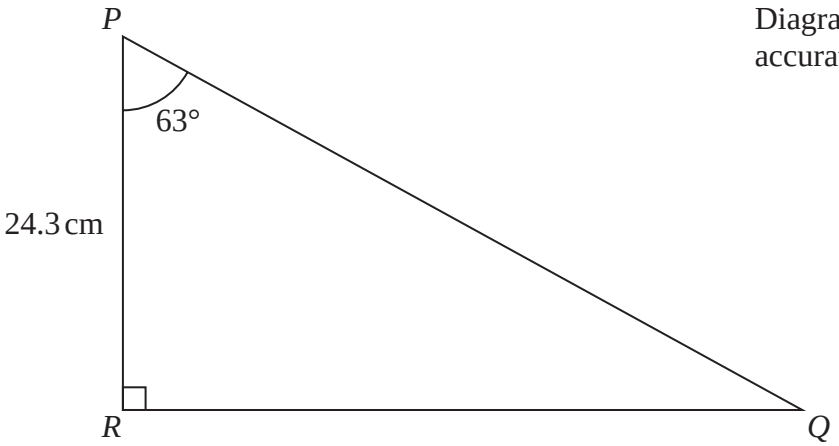

Diagram **NOT** accurately drawn

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

..... cm

(Total for Question 2 is 3 marks)

3 Here is isosceles triangle *ABC*.

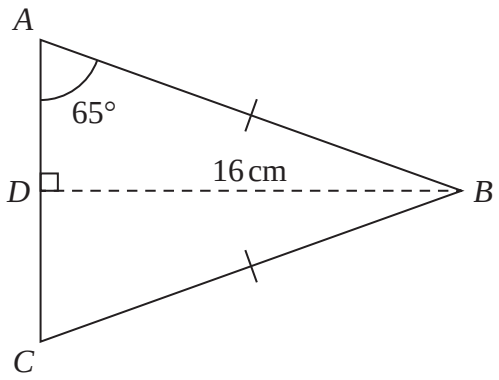

Diagram **NOT** accurately drawn

D is the midpoint of *AC* and *DB* = 16 cm.

Angle *DAB* = 65°

Work out the perimeter of triangle *ABC*.
Give your answer correct to one decimal place.

..... cm

(Total for Question 3 is 4 marks)

4 The diagram shows triangle *ABP* inside the regular hexagon *ABCDEF*

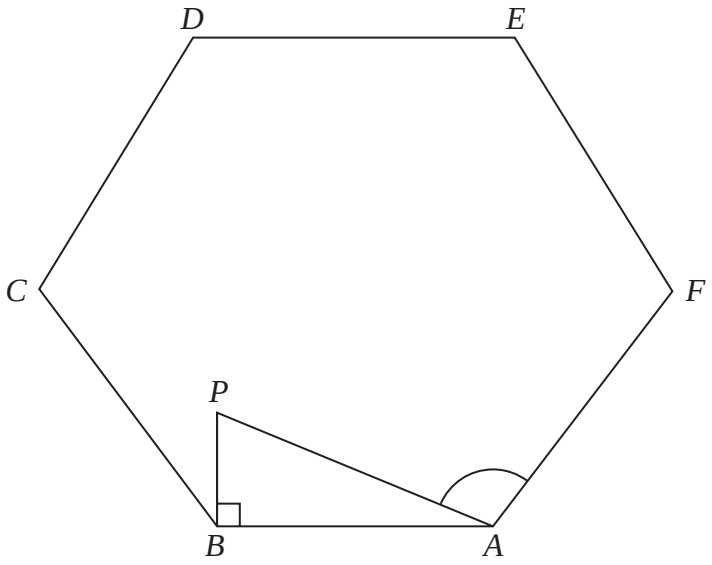

Diagram **NOT** accurately drawn

AB = 5 cm *BP* = 2 cm Angle *ABP* = 90°

Work out the size of angle *PAF*
Give your answer correct to 3 significant figures.

.....°

(Total for Question 4 is 5 marks)

5 The diagram shows triangle *PQR*.

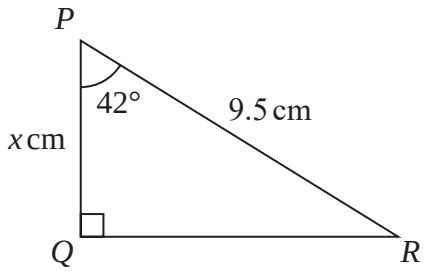

Diagram **NOT** accurately drawn

Work out the value of x
Give your answer correct to one decimal place.

x = ...

(Total for Question 5 is 3 marks)

6 *R* and *T* are points on a circle, centre *O*

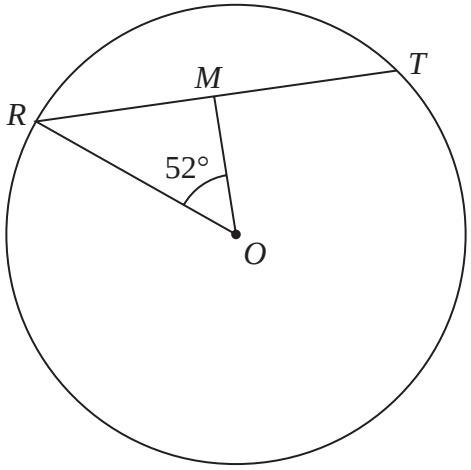

Diagram **NOT** accurately drawn

RT = 12 cm
M is the midpoint of *RT*
Angle *ROM* = 52°

Work out the area of the circle.
Give your answer correct to 3 significant figures.

..... cm^2

(Total for Question 6 is 4 marks)

7 The diagram shows a rectangular sheet of metal *ABCD*

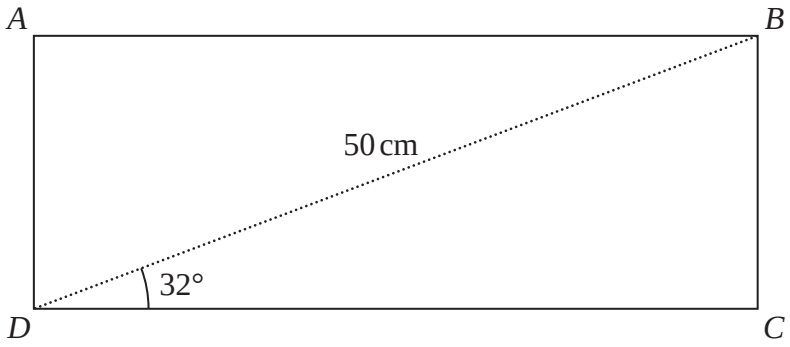

Diagram **NOT** accurately drawn

BD = 50 cm and angle *BDC* = 32°

Nasser joins side *AD* to side *BC* to form a cylinder.

BC is the height of the cylinder.
DC is the circumference of the cross section of the cylinder.

Work out the volume, in cm^3, of the cylinder.
Give your answer correct to 3 significant figures.

..... cm^3

(Total for Question 7 is 6 marks)

8 The diagram shows right-angled triangle *ABD*

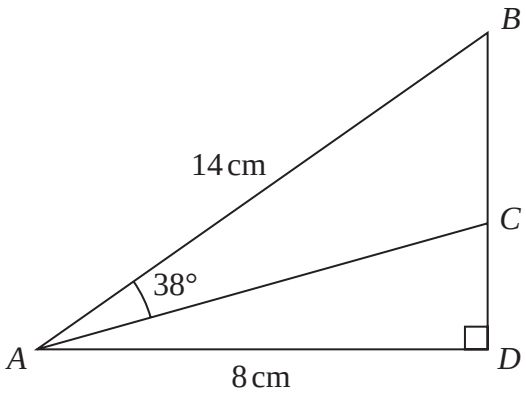

Diagram **NOT** accurately drawn

AB = 14 cm *AD* = 8 cm

C is the point on *BD* such that angle *BAC* = 38°

Work out the length of *CD*
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 8 is 4 marks)