Revision - Trigonometry

1.

Here is triangle ABD.

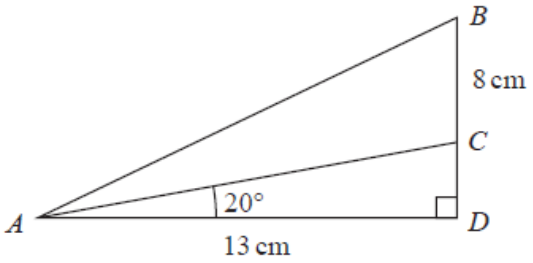

Diagram **NOT** accurately drawn

The point C lies on BD.

$AD = 13$ cm $BC = 8$ cm angle $ADB = 90°$ angle $CAD = 20°$

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

°

……..

2.

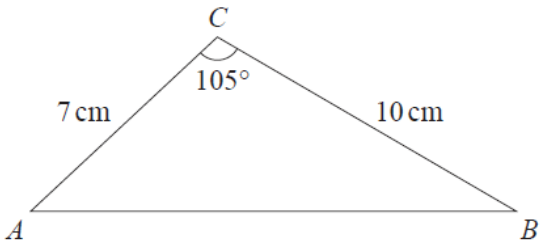

Diagram **NOT** accurately drawn

(a) Work out the area of triangle *ABC*.
Give your answer correct to 3 significant figures.

..... cm^2

(2)

(b) Work out the size of angle *BAC*.
Give your answer correct to 1 decimal place.

3.

Here is triangle ABC.

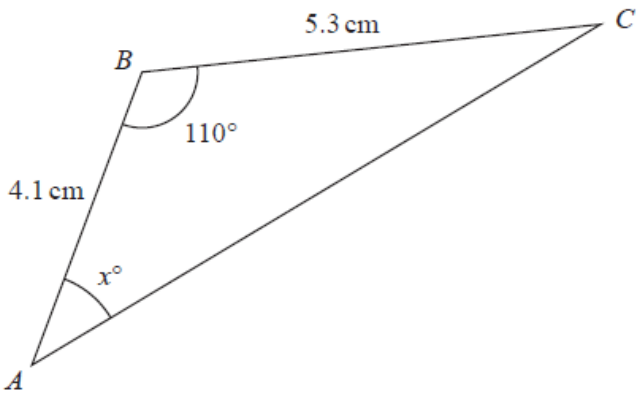

Diagram **NOT** accurately drawn

Calculate the value of x.
Give your answer correct to 3 significant figures.

.....°

(5)

4.

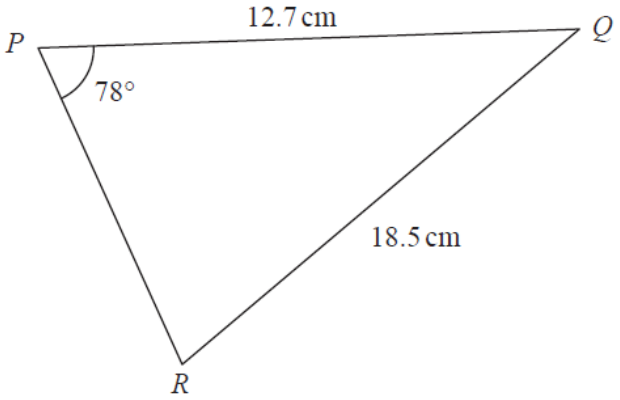

Diagram **NOT** accurately drawn

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

..... cm^2

5.

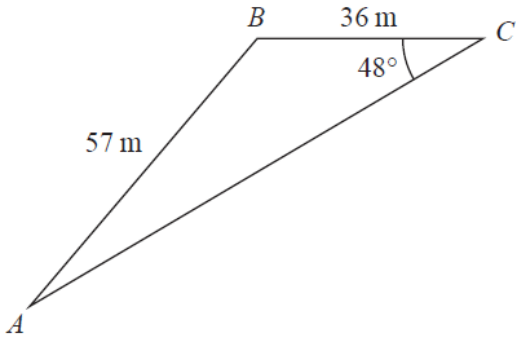

Diagram **NOT** accurately drawn

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

..... m^2

6.

The diagram shows a triangular prism.

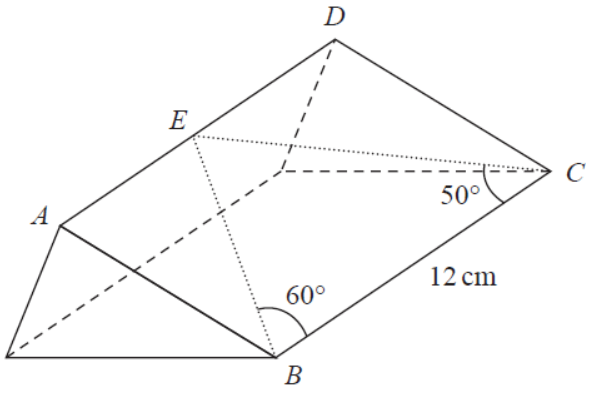

Diagram **NOT** accurately drawn

The point E lies on AD.

Angle $EBC = 60°$ Angle $ECB = 50°$ Angle $ABC = 90°$ Angle $BAD = 90°$
$BC = 12$ cm

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

cm

7.

The diagram shows a sector $OABC$ of a circle, centre O and radius 15 cm.

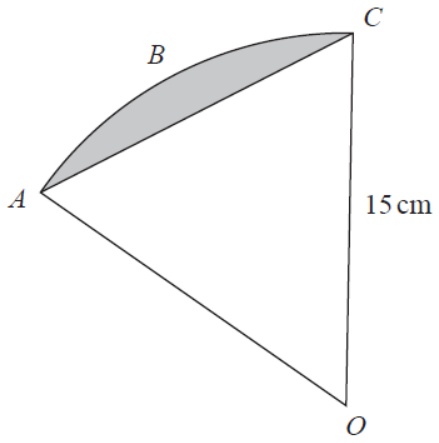

Diagram **NOT** accurately drawn

The length of arc $ABC = 3\pi$ cm.

Work out the area of the shaded segment.
Give your answer correct to 1 decimal place.

cm^2

8.

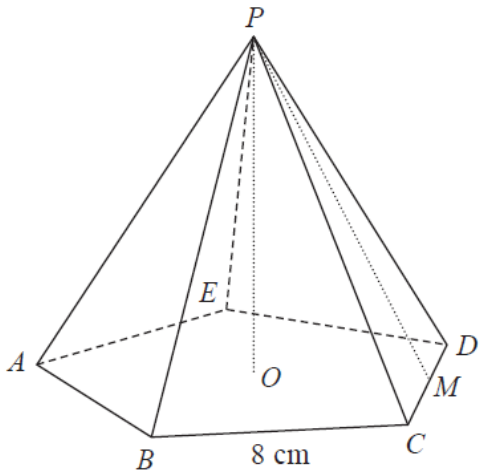

Diagram **NOT** accurately drawn

The diagram shows a pyramid with horizontal base $ABCDE$.
$ABCDE$ is a regular pentagon, centre O and side 8 cm.

The vertex P is vertically above O.
M is the midpoint of CD.
$OP = 10$ cm.

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

9.

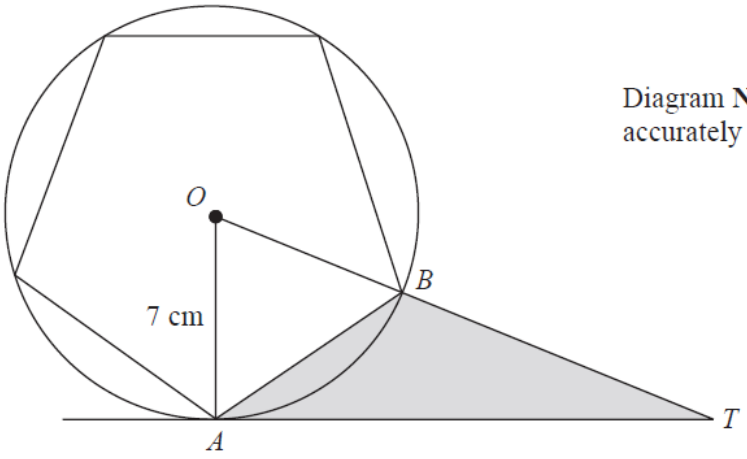

Diagram **NOT** accurately drawn

The diagram shows a regular pentagon inside a circle, centre O.
The points A and B lie on the circle such that AB is a side of the pentagon.
$OA = 7$ cm.
TA is a tangent to the circle and OBT is a straight line.

Calculate the area of triangle ABT.
Give your answer correct to 3 significant figures.

..... cm^2

10.

ABCDE is a regular pentagon with sides of length 10 cm.

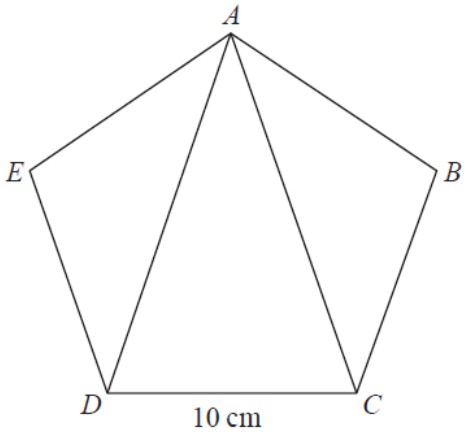

Diagram **NOT** accurately drawn

Calculate the area of triangle *ACD*.
Give your answer correct to 3 significant figures.

..... cm^2