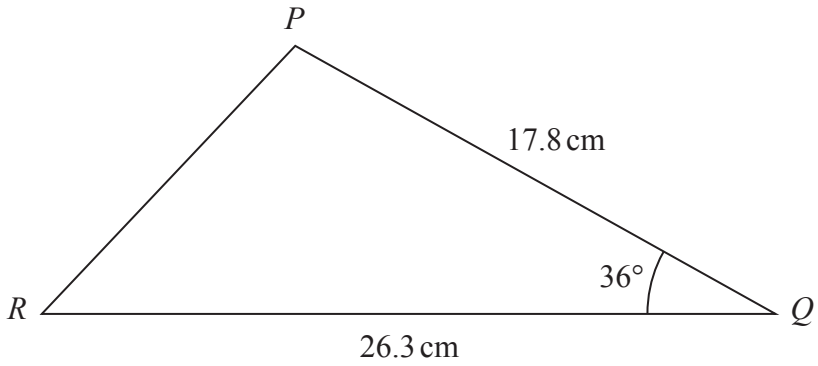
1 The diagram shows triangle PQR.

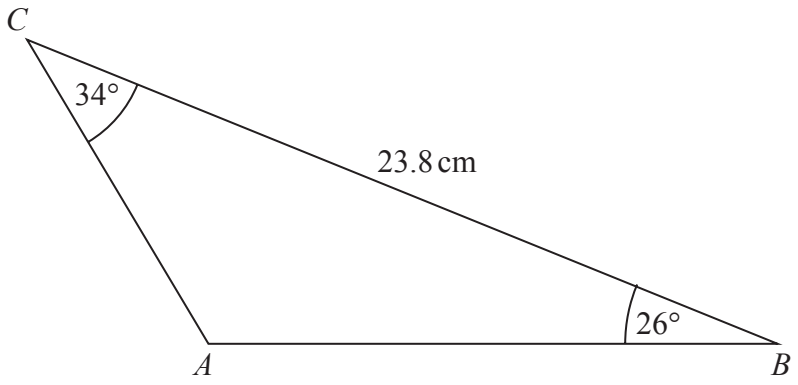


Calculate the length of PR.
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 1 is 3 marks)

2 Here is triangle ABC.



Work out the length of AB.
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 2 is 3 marks)

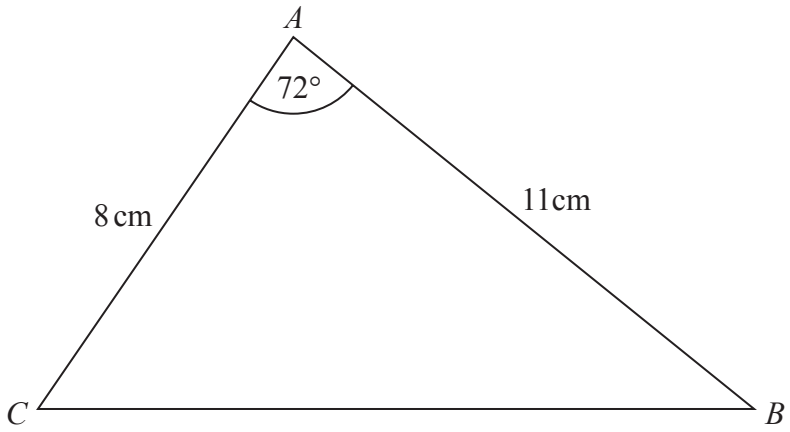
3 A triangle has sides of length 8 cm, 10 cm and 14 cm.

Work out the size of the largest angle of the triangle.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 3 is 3 marks)

4 Here is triangle *ABC*.



(a) Find the length of *BC*.
Give your answer correct to 3 significant figures.

..... cm

(3)

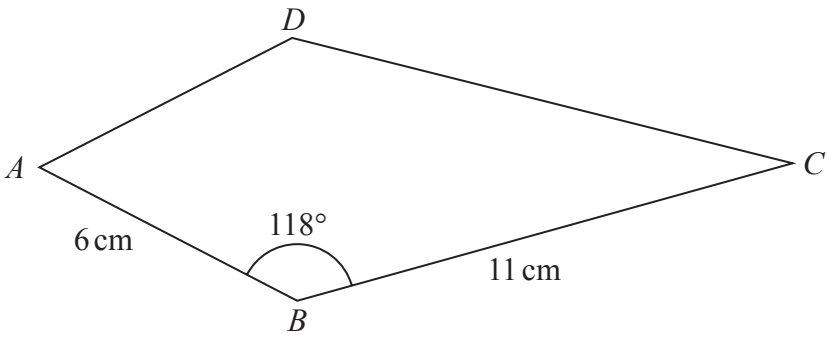
(b) Find the area of triangle *ABC*.
Give your answer correct to 3 significant figures.

..... cm^2

(2)

(Total for Question 4 is 5 marks)

5 The diagram shows a kite *ABCD*



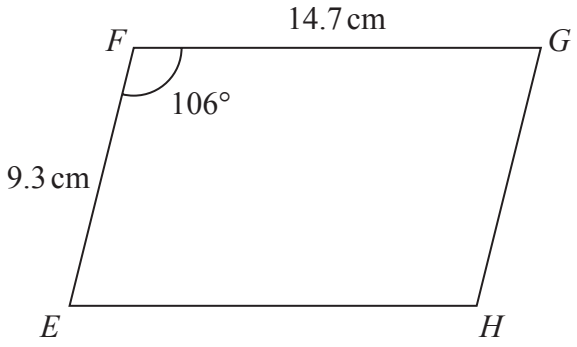
$AB = 6\,\text{cm}$ $BC = 11\,\text{cm}$ Angle $ABC = 118°$

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

..... cm^2

(Total for Question 5 is 3 marks)

6 The diagram shows parallelogram *EFGH*.



EF = 9.3 cm
FG = 14.7 cm
Angle *EFG* = 106°

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

..... cm^2

(2)

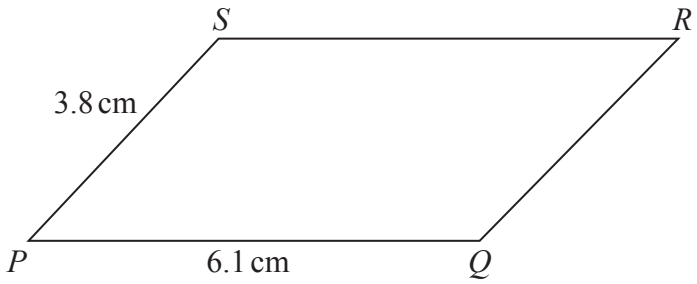
(b) Work out the length of the diagonal *EG* of the parallelogram.
Give your answer correct to 3 significant figures.

..... cm

(3)

(Total for Question 6 is 5 marks)

7 Here is a parallelogram $PQRS$, in which angle SPQ is acute.



$PQ = 6.1\,\text{cm}$ $PS = 3.8\,\text{cm}$

The area of the parallelogram is $18\,\text{cm}^2$

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

..... cm

(Total for Question 7 is 5 marks)

8 In triangle RPQ,

$RP = 8.7$ cm
$PQ = 5.2$ cm
Angle $PRQ = 32°$

(a) Assuming that angle PQR is an acute angle,
calculate the area of triangle RPQ.
Give your answer correct to 3 significant figures.

.....cm^2

(4)

(b) If you did not know that angle PQR is an acute angle, what effect would this have on your calculation of the area of triangle RPQ?

.....

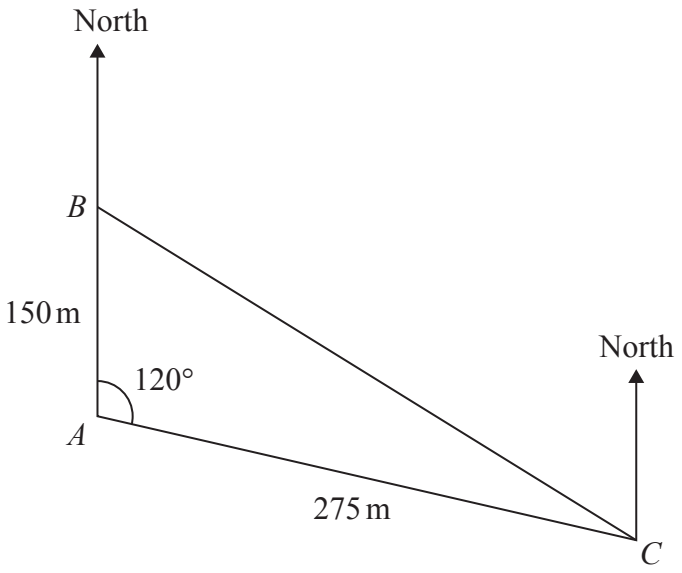
.....

.....

(1)

(Total for Question 8 is 5 marks)

9 The diagram shows the positions of three ships, A, B and C.



Ship B is due north of ship A.

The bearing of ship C from ship A is 120°

Calculate the bearing of ship C from ship B.
Give your answer correct to the nearest degree.

°

(Total for Question 9 is 5 marks)

10 A boat sails from point X to point Y and then to point Z.

Y is on a bearing of 280° from X.
Z is on a bearing of 220° from Y.

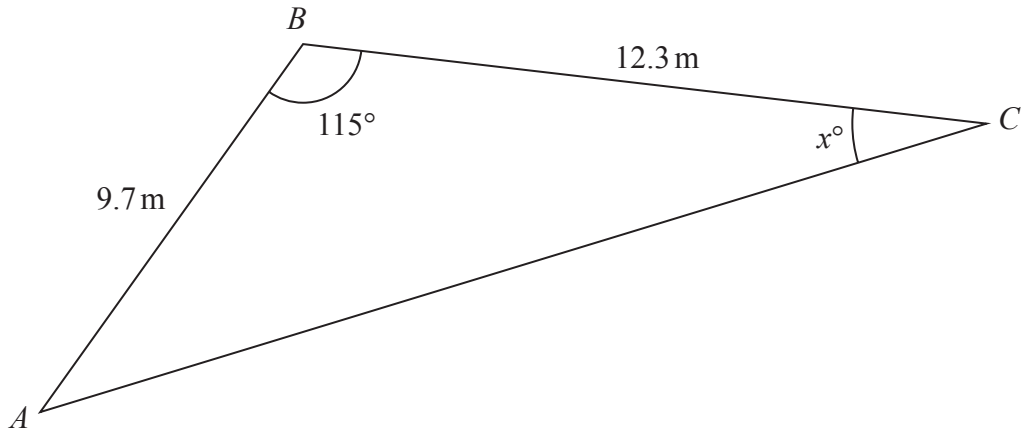
The distance from X to Y is 3.5 km.
The distance from Y to Z is 6 km.

Work out the bearing of Z from X.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 10 is 5 marks)

11 Here is triangle ABC

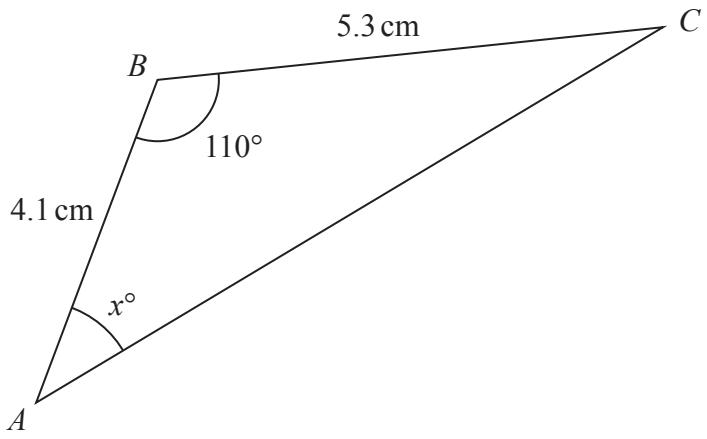


Work out the value of x
Give your answer correct to 3 significant figures.

$x =$ .....

(Total for Question 11 is 5 marks)

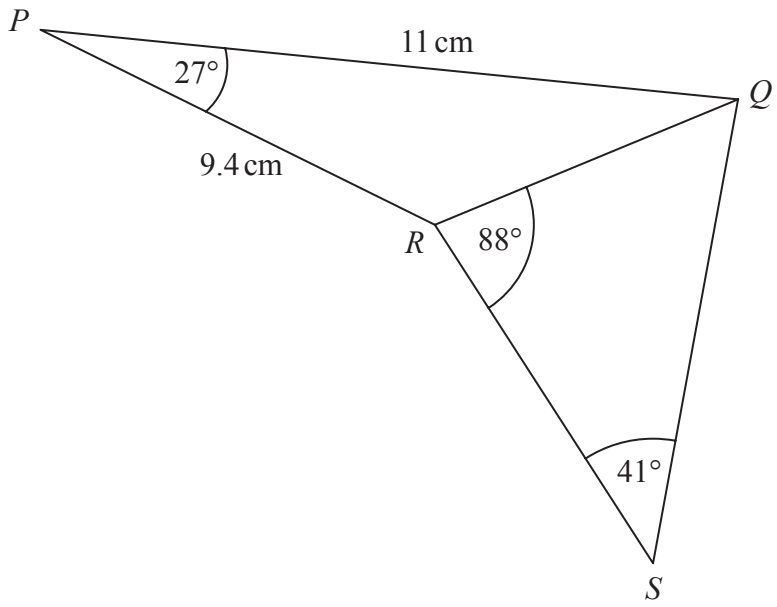
12 Here is triangle ABC.



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

(Total for Question 12 is 5 marks)

13 *PQR* and *QRS* are triangles.

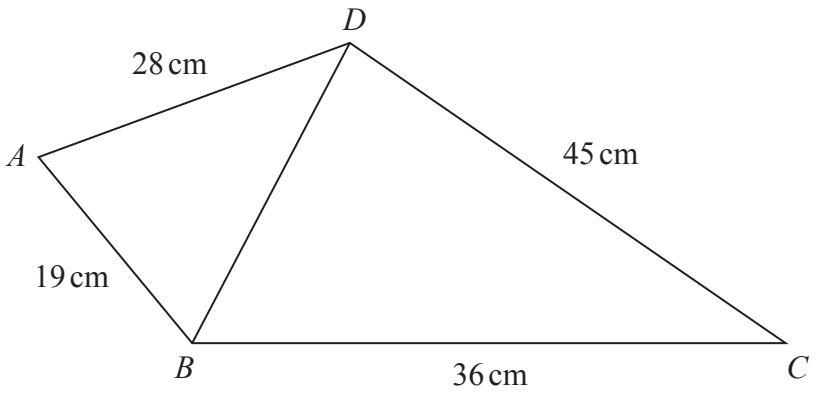


Calculate the length of *QS*.
Give your answer correct to 3 significant figures.
You must show all your working.

..... cm

(Total for Question 13 is 4 marks)

14 The diagram shows quadrilateral *ABCD*



The angle *BCD* is acute.

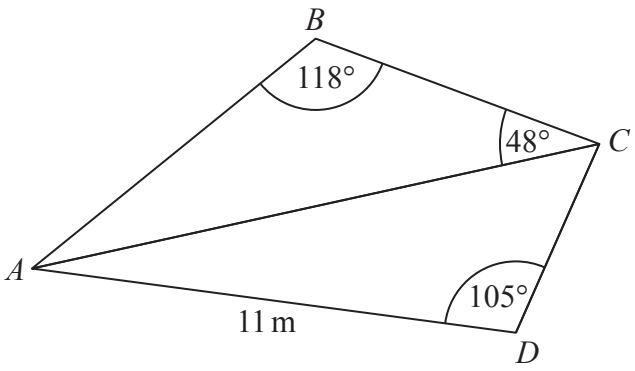
Given that the area of triangle *BCD* = 405 cm^2

work out the size of angle *ABD*
Give your answer correct to one decimal place.

.....°

(Total for Question 14 is 5 marks)

15 *ABC* and *ADC* are triangles.



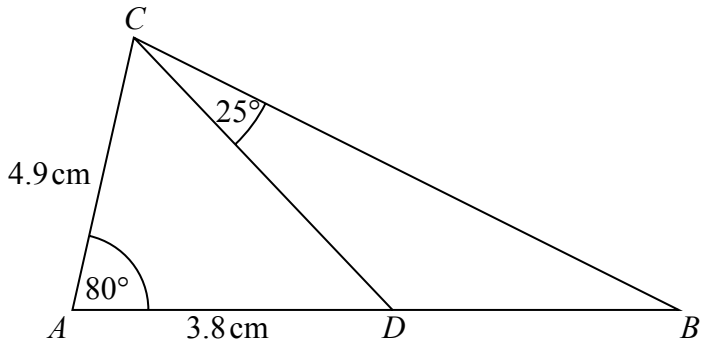
The area of triangle *ADC* is $56\,m^2$

Work out the length of *AB*.
Give your answer correct to 1 decimal place.

..... m

(Total for Question 15 is 5 marks)

16



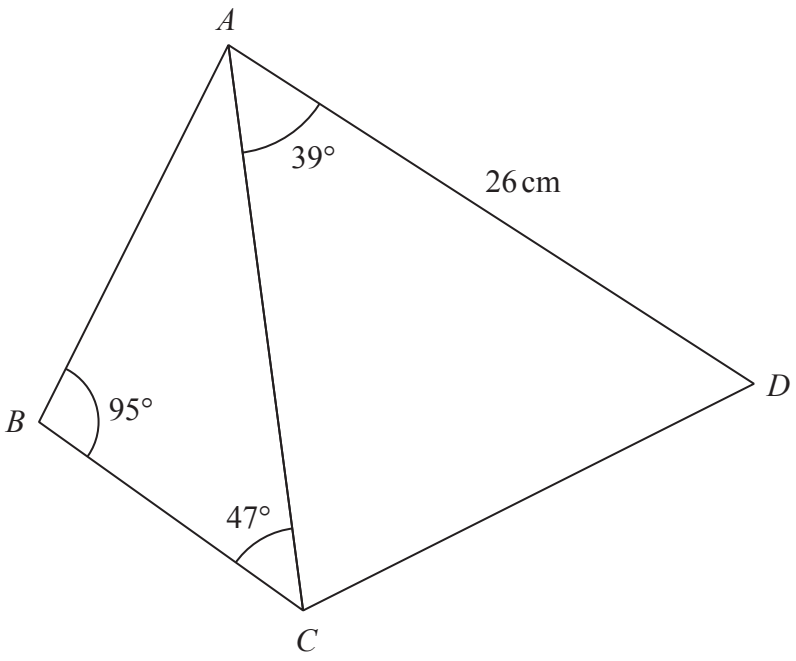
ABC is a triangle.
D is a point on *AB*.

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

..... cm^2

(Total for Question 16 is 5 marks)

17 *ABCD* is a quadrilateral.



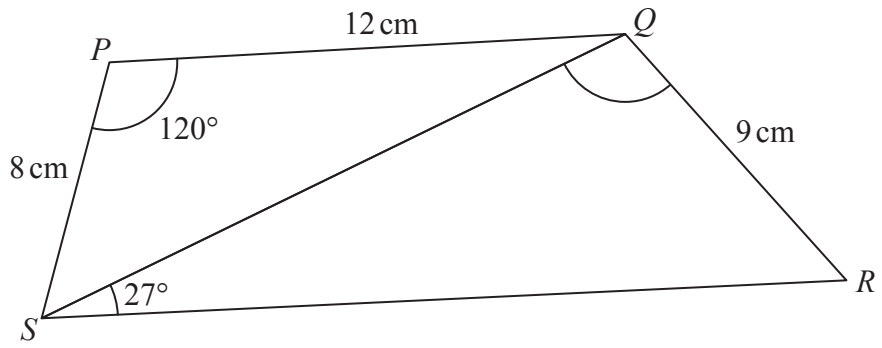
The area of triangle *ACD* is 250 cm^2

Calculate the area of the quadrilateral *ABCD*.
Show your working clearly.
Give your answer correct to 3 significant figures.

.....cm^2

(Total for Question 17 is 6 marks)

18 Here is a quadrilateral *PQRS*.



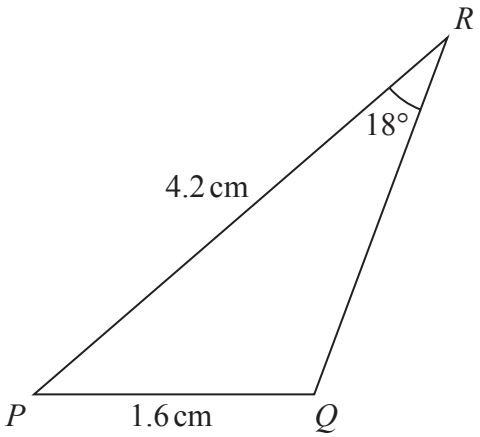
Angle *SRQ* is acute.

Work out the size of angle *SQR*.
Give your answer correct to 1 decimal place.

.....°

(Total for Question 18 is 6 marks)

19 The diagram shows triangle PQR



$PQ = 1.6\,\text{cm}$ $PR = 4.2\,\text{cm}$ Angle $PRQ = 18°$

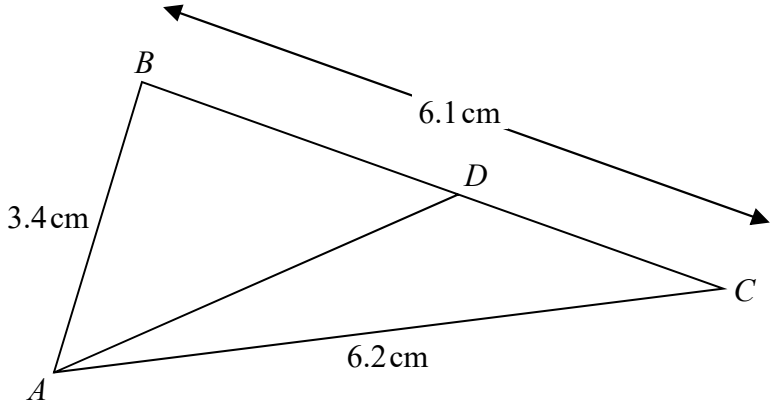
Given that angle PQR is obtuse,

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

..... cm^2

(Total for Question 19 is 6 marks)

20 The diagram shows triangle ABC.



$AB = 3.4\,\text{cm}$ $AC = 6.2\,\text{cm}$ $BC = 6.1\,\text{cm}$

D is the point on BC such that

$$\text{size of angle } DAC = \frac{2}{5} \times \text{ size of angle } BCA$$

Calculate the length DC.
Give your answer correct to 3 significant figures.
You must show all your working.

..... cm

(Total for Question 20 is 5 marks)