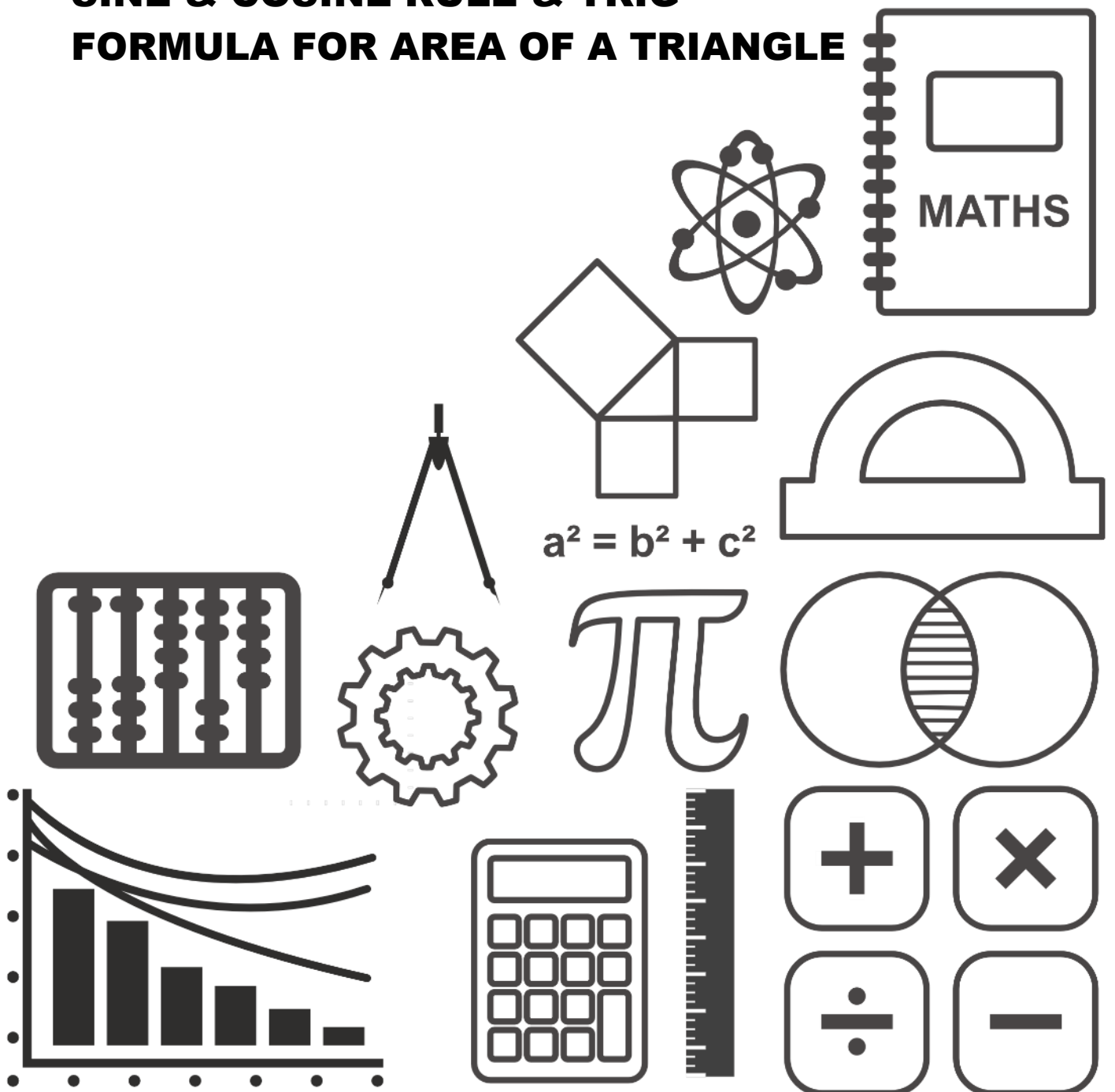


MATHSDIY

GCSE TOPIC BOOKLET SINE & COSINE RULE & TRIG FORMULA FOR AREA OF A TRIANGLE



1.

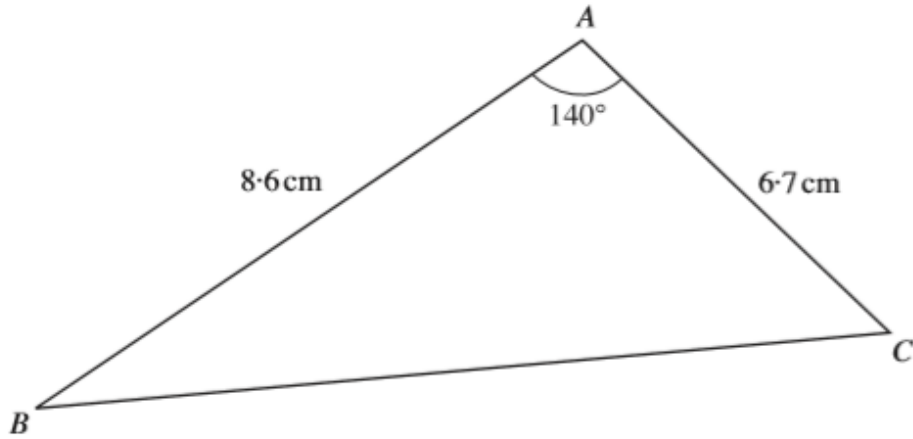


Diagram not drawn to scale.

(a) Find BC .

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[3]

(b) Calculate the area of triangle ABC .

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[2]

(c) Hence, find the perpendicular distance between A and BC .

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[2]

2. The diagram shows triangle PQR .

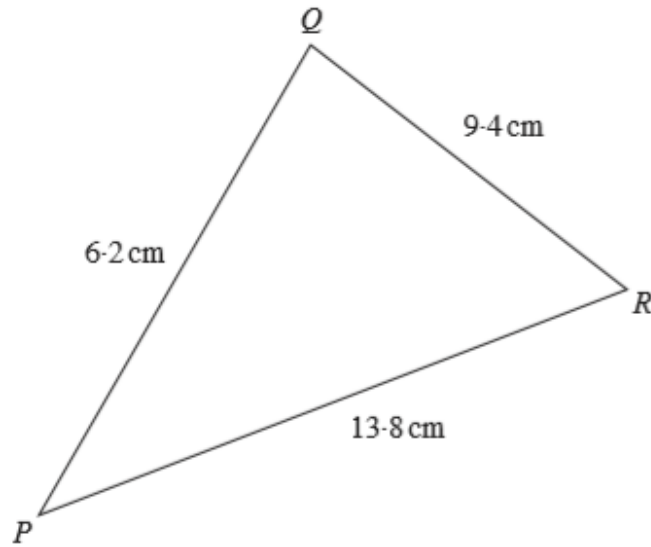


Diagram not drawn to scale.

The triangle PQR is such that $QR = 9.4$ cm, $PR = 13.8$ cm and $PQ = 6.2$ cm.

(a) Find the size of \hat{PQR} .

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(b) Find the area of triangle PQR , clearly indicating the units of your answer.

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3. The diagram shows triangle ABC .

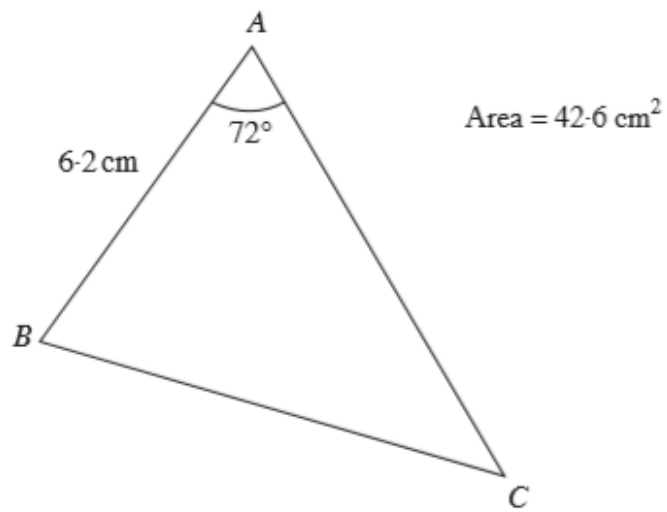


Diagram not drawn to scale.

Given that $\hat{BAC} = 72^\circ$, $AB = 6.2 \text{ cm}$ and that the area of the triangle ABC is 42.6 cm^2 , find BC .

[6]

4. The diagram shows triangle ABC .

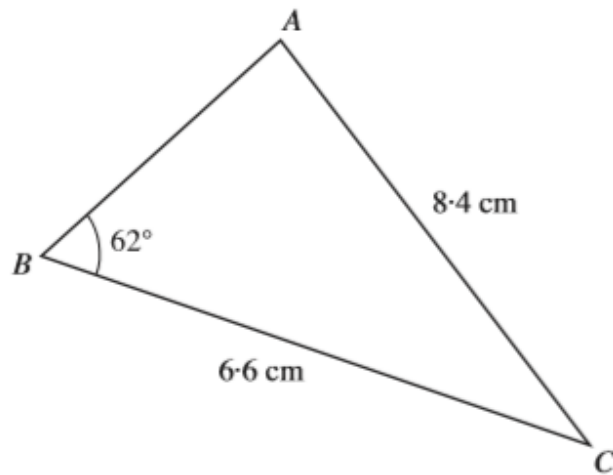


Diagram not drawn to scale.

You are given that $BC = 6.6$ cm, $AC = 8.4$ cm and $\widehat{ABC} = 62^\circ$.

(a) Calculate the size of the acute angle BAC .

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(b) Calculate the area of the triangle ABC .

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5. The diagram shows quadrilateral $ABCD$.

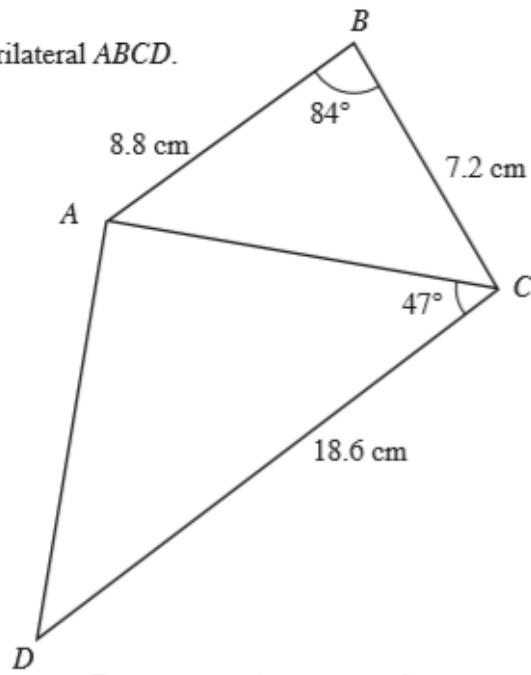


Diagram not drawn to scale.

Given that $AB = 8.8$ cm, $BC = 7.2$ cm, $CD = 18.6$ cm, $\widehat{ABC} = 84^\circ$ and $\widehat{ACD} = 47^\circ$, calculate the area of the triangle ACD .

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[6]

6. The diagram shows a triangle ABC with D a point on BC .

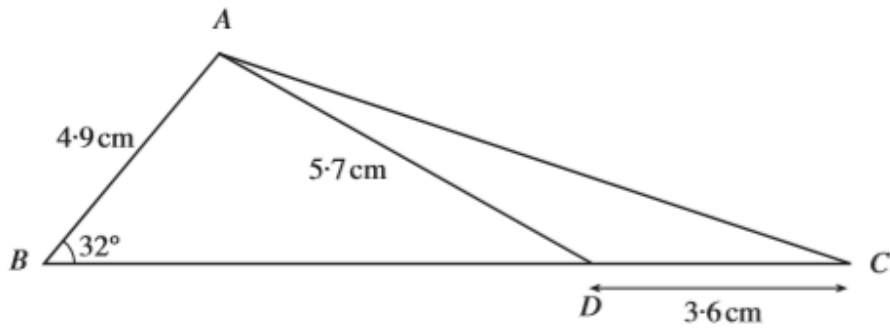


Diagram not drawn to scale.

Given that $\hat{ABD} = 32^\circ$, $AB = 4.9\text{ cm}$, $AD = 5.7\text{ cm}$ and $DC = 3.6\text{ cm}$, calculate the area of triangle ADC .

[6]

7.

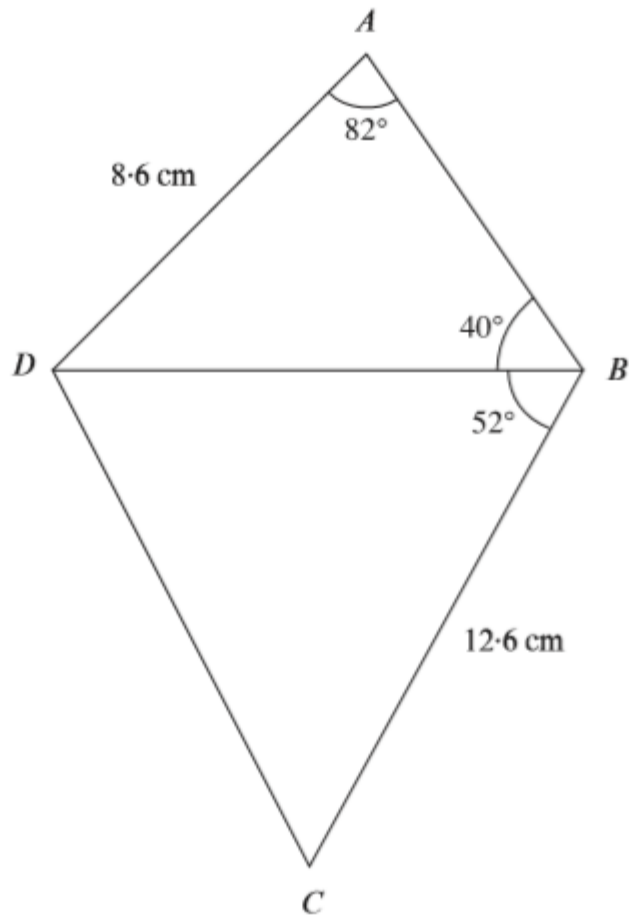


Diagram not drawn to scale.

Find the length of DC.

[7]

