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National 5 Maths
Sine Rule: Finding a Side

SQA past paper and specimen paper questions and answers by topic

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National 5 Maths
SQA 2014 Paper 1
Question 5

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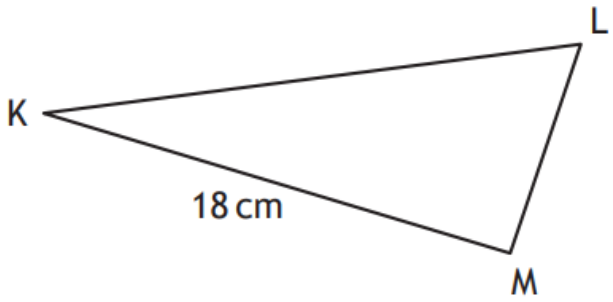
In triangle KLM

- KM = 18 centimetres
- sin K = 0·4
- sin L = 0·9

Calculate the length of LM. **3**



Answer:

8 cm

National 5 Maths
SQA 2015 Paper 2
Question 13

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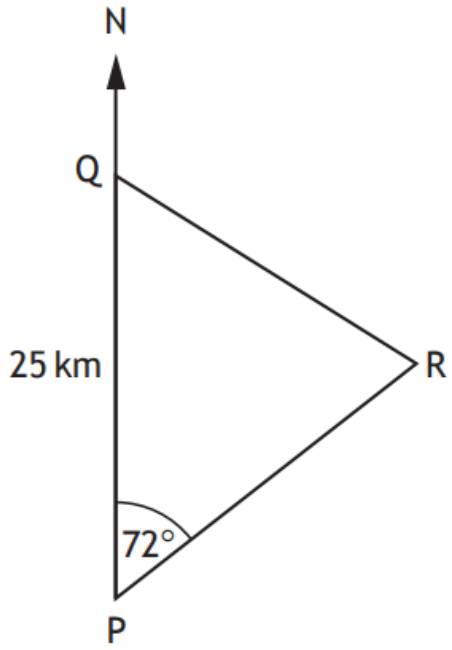
In the diagram below P, Q and R represent the positions of Portlee, Queenstown and Rushton respectively.



Portlee is 25 kilometres due South of Queenstown.
From Portlee, the bearing of Rushton is 072°.
From Queenstown, the bearing of Rushton is 128°.

Calculate the distance between Portlee and Rushton.

Do not use a scale drawing. **4**

Answer:

23.8 km

National 5 Maths
SQA 2017 Paper 2
Question 10

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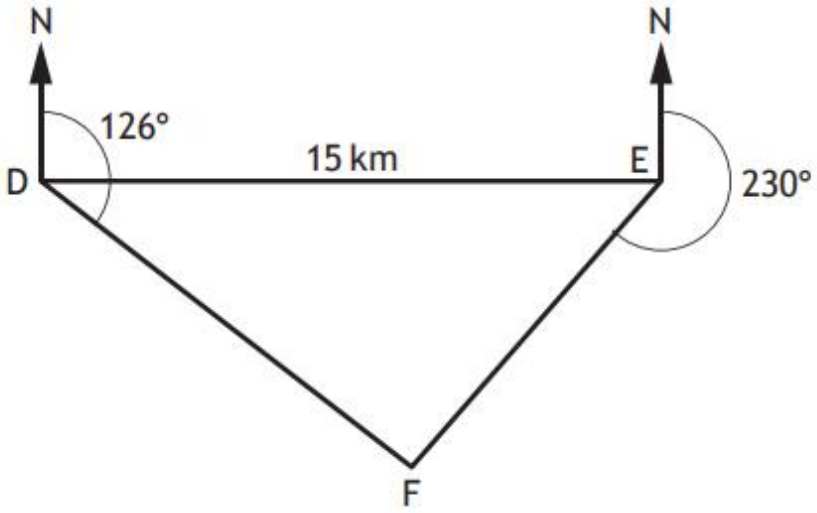
In the diagram below D, E and F represent the positions of Dunbridge, Earlsford and Fairtown respectively.



Dunbridge is 15 kilometres west of Earlsford.

From Dunbridge, the bearing of Fairtown is 126°.

From Earlsford the bearing of Fairtown is 230°.

Calculate the distance between Dunbridge and Fairtown. **4**

Do not use a scale drawing.

Answer:

9.9 km

National 5 Maths
SQA 2018 Paper 2
Question 9

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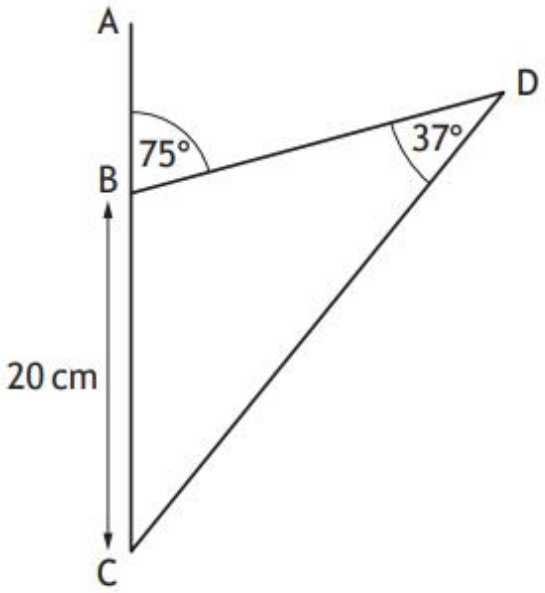
In this diagram:

- angle ABD = 75°
- angle BDC = 37°
- BC = 20 centimetres.



Calculate the length of DC. 3

Answer:

32.1 cm

National 5 Maths
SQA 2019 Paper 2
Question 19

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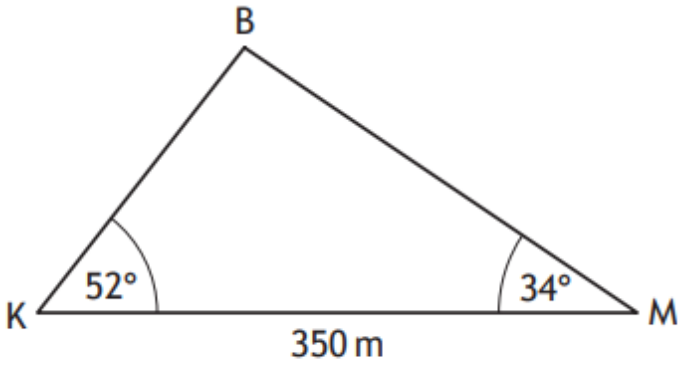
Katy and Mona are looking up at a hot-air balloon.

In the diagram below, K, M and B represent the positions of Katy, Mona and the balloon respectively.



- The angle of elevation of the balloon from Katy is 52°
- The angle of elevation of the balloon from Mona is 34°
- Katy and Mona are 350 metres apart on level ground

Calculate the height of the hot-air balloon above the ground. **5**

Answer:

154.6 m

National 5 Maths
SQA 2022 Paper 2
Question 14

National 5 Maths
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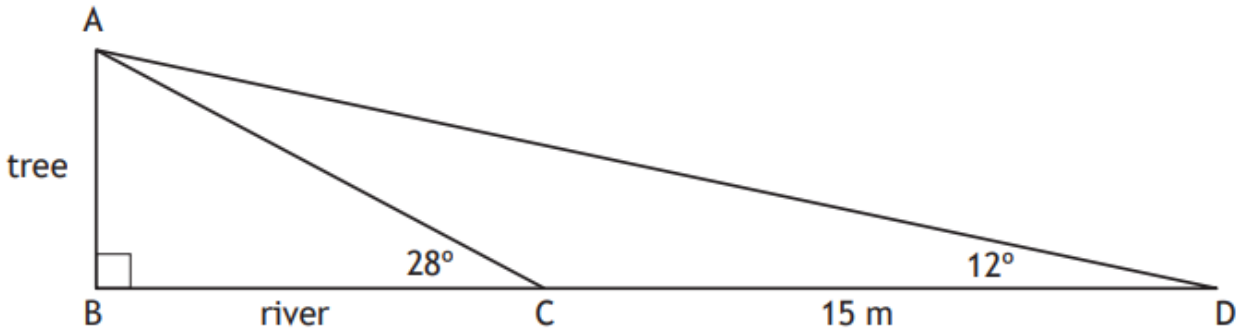
The width of a river is represented by BC in the diagram below.

AB represents a tree on the river bank.



- From C, the angle of elevation to A is 28°.
- From D, the angle of elevation to A is 12°.
- The distance from C to D is 15 metres.
- BCD is a straight line.

Calculate BC, the width of the river. **5**

Answer:

9.99 m

National 5 Maths
SQA 2024 Paper 2
Question 13

National 5 Maths
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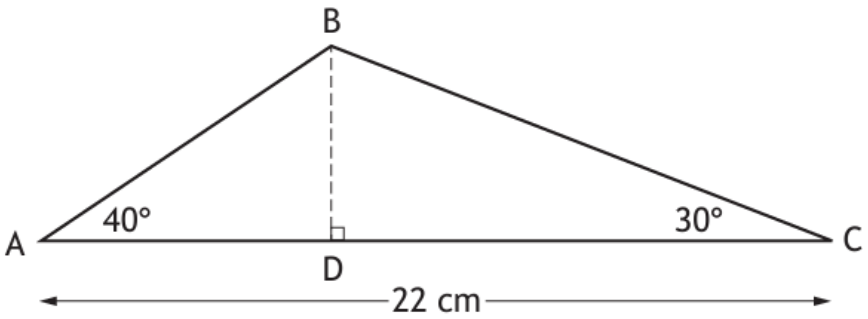
In triangle ABC:



- AC = 22 centimetres
- angle BAC = 40°
- angle BCA = 30°
- BD is perpendicular to AC.

Calculate the length of BD. **5**

Answer:

7.5 cm