



National 5 Maths

Sine Rule: Finding an Angle

SQA past paper and specimen paper
questions and answers by topic

SQA material is copyright © Scottish Qualifications Authority
and has been reproduced by kind permission of SQA.

This resource is free to distribute and use on a non-commercial basis.

Visit [Maths.scot](https://www.maths.scot) for full worked solutions to each of these questions.

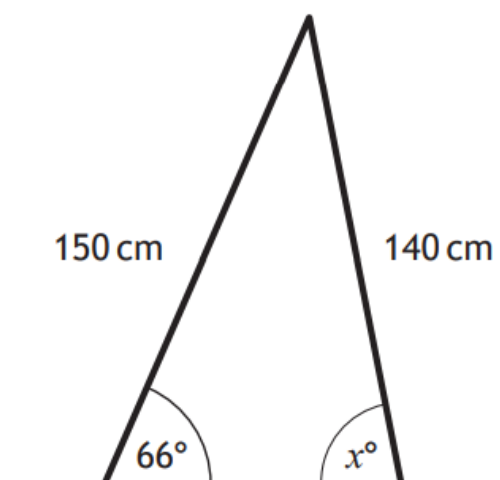




A set of stepladders has legs 150 centimetres and 140 centimetres long.



When the stepladder is fully open, the angle between the longer leg and the ground is 66° .



Calculate x° , the size of the angle between the shorter leg and the ground.

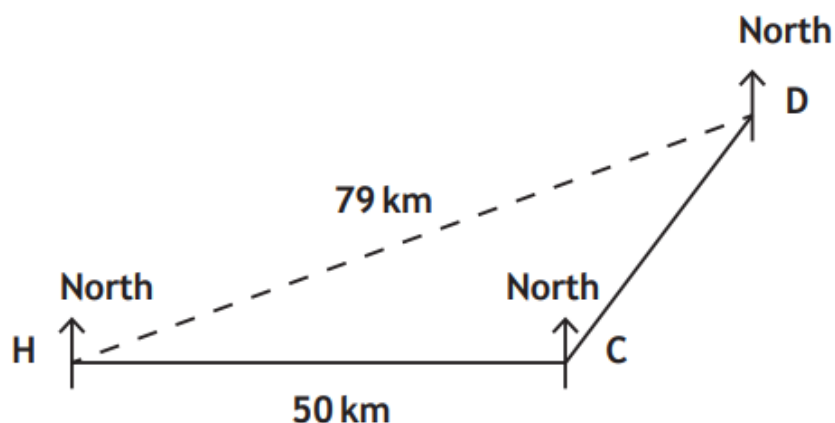
3

Answer:

78.2°



A yacht sails from a harbour H to a point C, then to a point D as shown below.



C is 50 kilometres due east of H.

D is on a bearing of 040° from C and is 79 kilometres from H.

- (a) Calculate the size of angle CDH. 4
- (b) Hence, calculate the bearing on which the yacht must sail to return directly to the harbour. 2

Answers:

- (a) 29°
(b) 249°

National 5 Maths
SQA 2021 Paper 2
Question 4

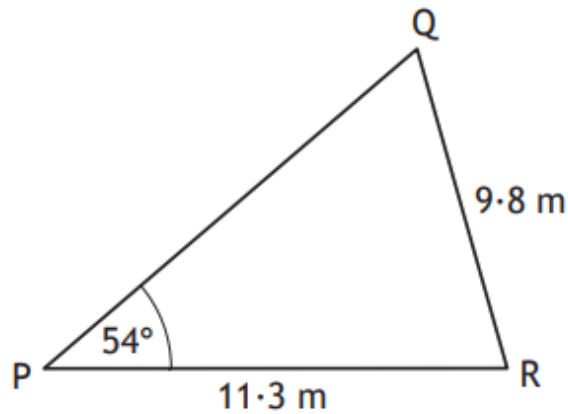
National 5 Maths

Maths.scot



In triangle PQR

- $PR = 11.3$ metres
- $QR = 9.8$ metres
- angle $QPR = 54^\circ$.



Calculate the size of acute angle PQR.

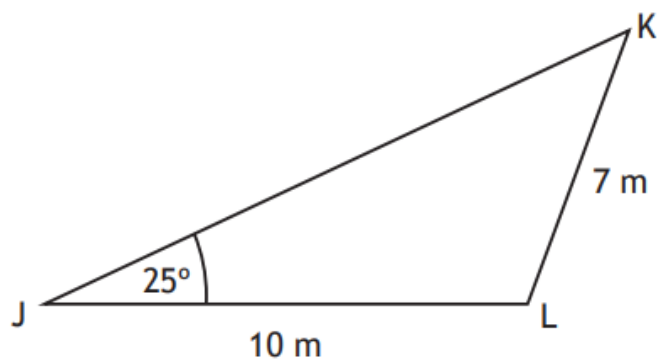
3

Answer:

68.9°

The diagram shows triangle JKL.

- Angle KJL = 25°
- JL = 10 metres
- KL = 7 metres



Calculate the size of angle JKL.

3

Answer:

37.1°