



National 5 Maths

Cosine Rule: Finding an Angle

SQA past paper and specimen paper
questions and answers by topic

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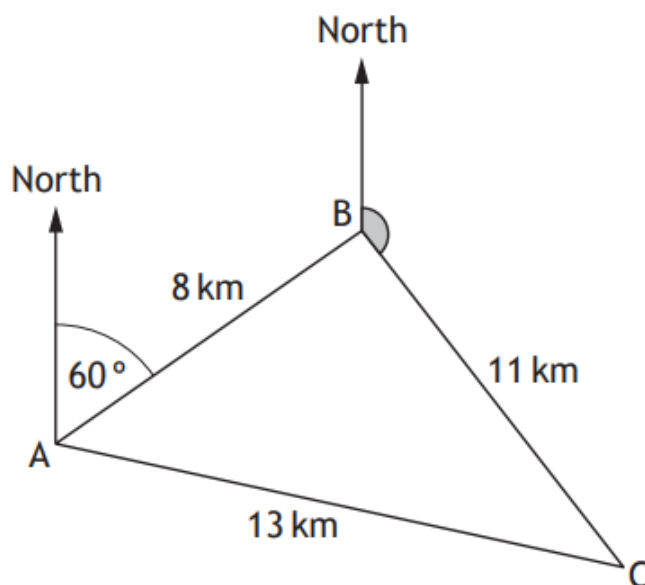
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In a race, boats sail round three buoys represented by A, B, and C in the diagram below.



B is 8 kilometres from A on a bearing of 060° .

C is 11 kilometres from B.

A is 13 kilometres from C.

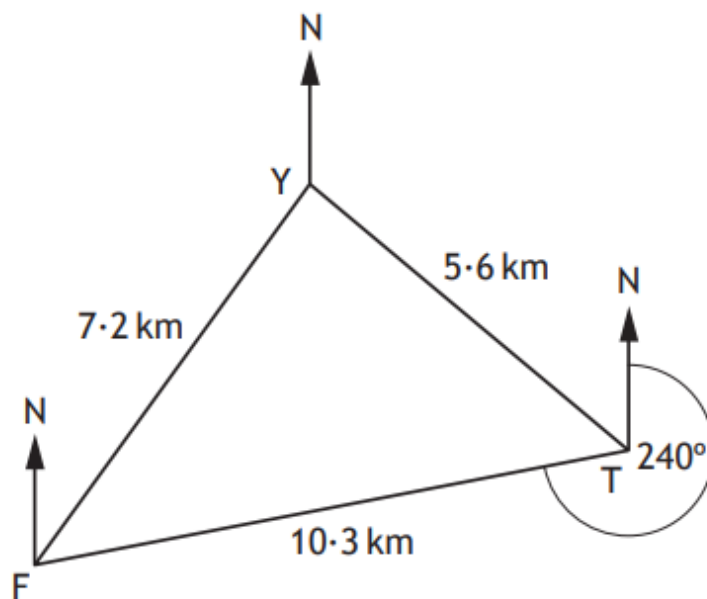
- (a) Calculate the size of angle ABC. 3
- (b) Hence find the size of the shaded angle. 2

Answers:

- (a) 84.8°
(b) 155.2°

A ferry and a trawler receive a request for help from a stranded yacht.

On the diagram the points F, T and Y show the positions of the ferry, the trawler and the yacht respectively.



- FY is 7.2 kilometres.
- TY is 5.6 kilometres.
- FT is 10.3 kilometres.
- F is on a bearing of 240° from T.

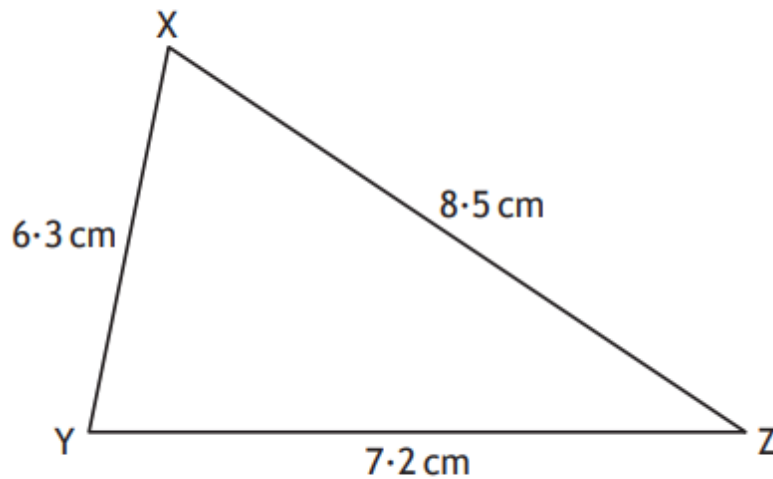
Calculate the bearing of the yacht from the trawler.

4

Answer:

282.1°

Triangle XYZ is shown below.



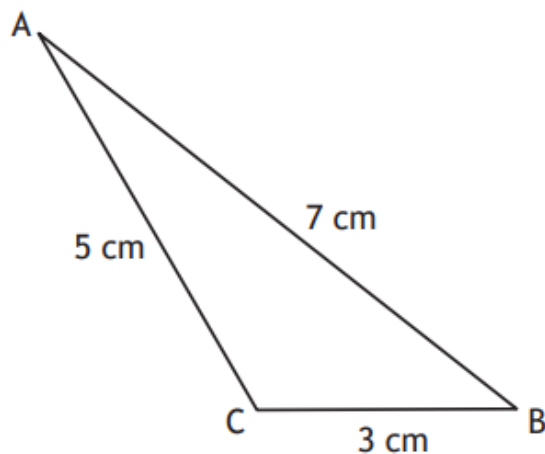
Calculate the size of the smallest angle in triangle XYZ.

3

Answer:

46.4°

The diagram shows triangle ABC.



- $AB = 7$ centimetres
- $BC = 3$ centimetres
- $AC = 5$ centimetres

Calculate the value of $\cos B$.

Give your answer in its simplest form.

2

Answer:

$$\frac{11}{14}$$