

Schoolworkout Maths

GCSE Trigonometry: Assessment B

Your Name:

Tutor Group:

End of GCSE target grade:

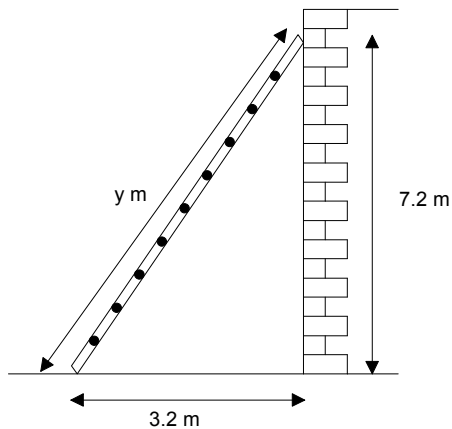
Grade achieved:

Grade C objectives

- I can use Pythagoras' theorem to find any side of a right-angled triangle
- I can use Pythagoras' theorem to find the height of an isosceles triangle
- I can use Pythagoras' theorem in practical problems



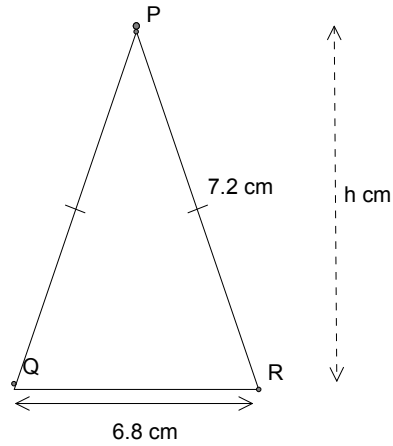
1.



A ladder is leaning up the side of a wall.
The ladder reaches 7.2 m up the wall.
The bottom of the ladder is 3.2 m away from the base of the wall.
Calculate y , the length of the ladder.

$$y = \dots\dots\dots \text{ m } [3]$$

2. PQR is an isosceles triangle.



$PQ = PR = 7.2 \text{ cm}$

$QR = 6.8 \text{ cm}$

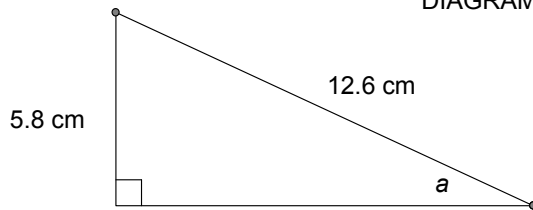
Calculate the height, h , of triangle PQR.

$h = \dots\dots\dots \text{cm} \quad [3]$

Grade B objectives	☺	☹	☹
• I can use sine, cosine and tangent to calculate an angle or a side in a right-angled triangle.			

3.

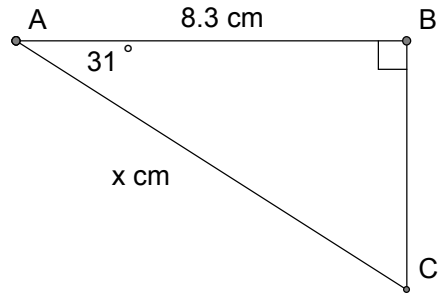
DIAGRAM NOT ACCURATELY DRAWN



Calculate the size of the angle marked a . Give your answer to one decimal place.

$a = \dots\dots\dots^\circ \quad [3]$

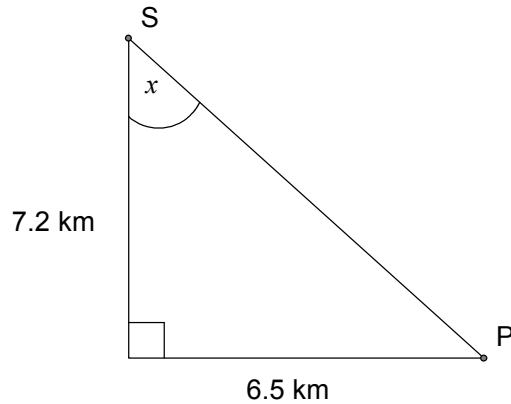
4. ABC is a right-angled triangle.
 $AB = 8.3$ cm
 Angle $CAB = 31^\circ$



Find the length of AC (marked x in the diagram).
 Give your answer to a suitable degree of accuracy.

$x = \dots\dots\dots\text{cm}$ [4]

5. A ship leaves a port P and sails 6.5 km due West and then 7.2 km due North.



- a) Calculate the size of angle x . Give your answer correct to 3 significant figures.

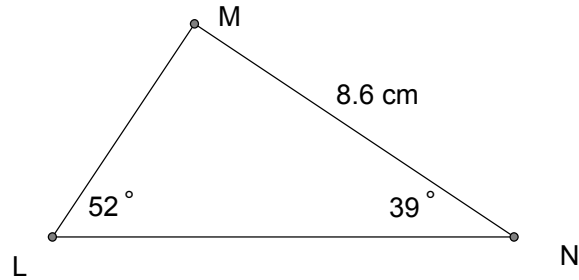
$x = \dots\dots\dots^\circ$ [2]

- b) Calculate the bearing of the ship's final position, S, from the port, P.

$\dots\dots\dots^\circ$ [1]

Grade A objectives	☺	☹	☹
• I can use the sine rule to find the missing sides and missing angles in any triangle.			
• I can use the cosine rule to find the missing sides and missing angles in any triangle.			
• I can use the formula for the area of a non right-angled triangle.			

6.



In triangle LMN:
 angle MLN = 52°
 angle LNM = 39°
 MN = 8.6 cm.

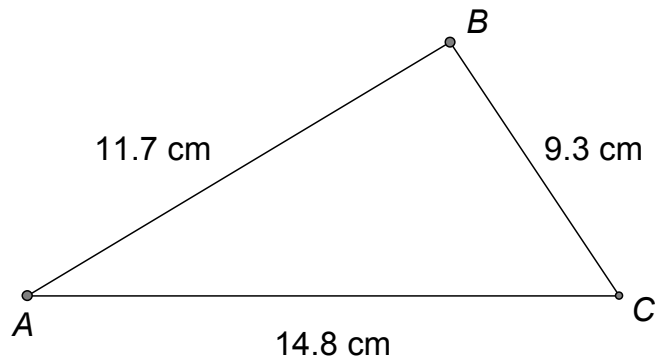
a) Calculate the length LN. Give your answer correct to 2 significant figures.

$$LN = \dots\dots\dots\text{cm} \quad [4]$$

b) Calculate the area of triangle LMN. Give your answer correct to 2 significant figures.

$$\text{Area} = \dots\dots\dots\text{cm}^2 \quad [3]$$

7.



Calculate the size of angle BAC.

Angle BAC =° [4]

Teacher feedback:

In order to get to the next grade (or in order to improve the quality of your work) you should...

The following aspect of your work was particularly good ...