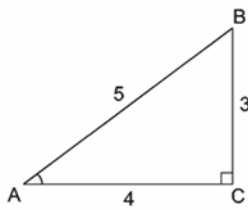




Starter:



Write down the following ratios as a decimal:

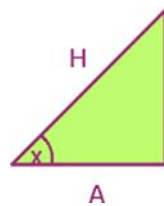
Sin A = Tan A = Cos A =

Sin B = Tan B = Cos B =

Top tips!

- Remember that the hypotenuse(h) is opposite the right angle and the opposite(o) means opposite the angle you're using!
- Ensure you can see the letter D (degrees) at the top of your calculator
- Use Sin^{-1} , Cos^{-1} neu Tan^{-1} to calculate angles
- Use SOH CAH TOA to remember the ratios!

Learn the ratios!

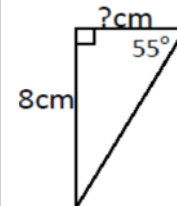


$$\text{SIN}(x) = \frac{O}{H}$$

$$\text{COS}(x) = \frac{A}{H}$$

$$\text{TAN}(x) = \frac{O}{A}$$

Example:



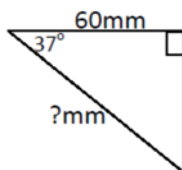
$$\tan 55 = \frac{8}{x}$$

$$x \tan 55 = 8$$

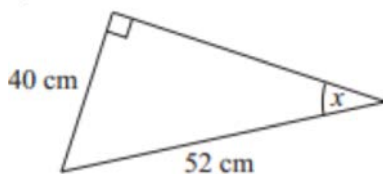
$$x = \frac{8}{\tan 55} = 5.6\text{cm}$$

Skills:

1. Calculate the length of the unknown side to one decimal place:



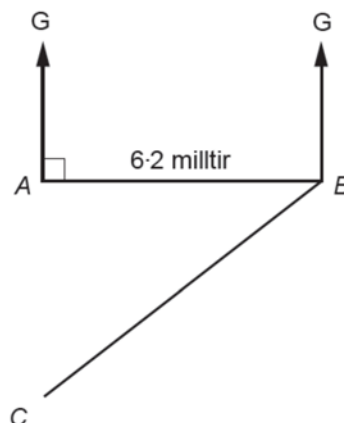
2. Calculate the size of the unknown angle to one decimal place:



Exam Question:

2014 June Linear Paper 2 Higher Tier Q9

A ship leaves port A and sails for 6.2 miles on a bearing of 090° to a point B. It then turns and sails on a bearing of 224° until it reaches point C, which is due south of port A. Calculate the distance between the point C and port A. [4]

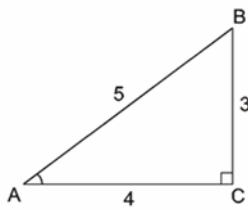


Assessment for learning

Video / QR code



Starter:



Write down the following ratios as a decimal:

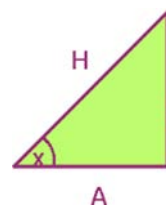
Sin A = 0.6 Tan A = 0.75 Cos A = 0.8

Sin B = 0.8 Tan B = 1.33 Cos B = 0.6

Top tips!

- Remember that the hypotenuse(h) is opposite the right angle and the opposite(o) means opposite the angle you're using!
- Ensure you can see the letter D (degrees) at the top of your calculator
- Use Sin^{-1} , Cos^{-1} neu Tan^{-1} to calculate angles
- Use SOH CAH TOA to remember the ratios!

Learn the ratios!

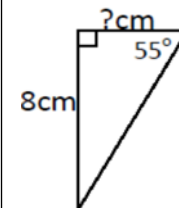


$\text{SIN}(x) = \frac{O}{H}$

$\text{COS}(x) = \frac{A}{H}$

$\text{TAN}(x) = \frac{O}{A}$

Example:



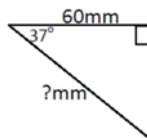
$\tan 55 = \frac{8}{x}$

$x \tan 55 = 8$

$x = \frac{8}{\tan 55} = 5.6\text{cm}$

Skills:

- Calculate the length of the unknown side to one decimal place:

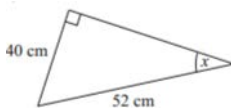


$\cos 37^\circ = \frac{60}{?}$

$? = \frac{60}{\cos 37^\circ}$

$? = 75.1\text{mm (1.l.d)}$

- Calculate the size of the unknown angle to one decimal place:



$\sin x = \frac{40}{52}$

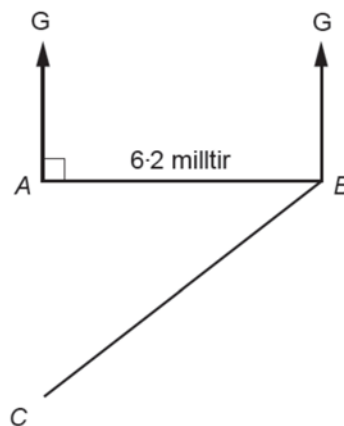
$x = 50.3^\circ \text{ (1.l.d)}$

Exam Question:

2014 June Linear Paper 2 Higher Tier Q9

A ship leaves port A and sails for 6.2 miles on a bearing of 090° to a point B. It then turns and sails on a bearing of 224° until it reaches point C, which is due south of port A.

Calculate the distance between the point C and port A. [4]



$\tan 46^\circ = \frac{?}{6.2}$

$? = \tan 46^\circ \times 6.2$

$? = 6.4 \text{ milltir (1.l.d)}$

Assessment for learning

Video / QR code

