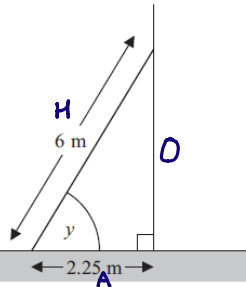


## How to ...

\*this means you need to write a final statement... its a QWC question.. (Quality of Written Communication)



\*The diagram shows a ladder leaning against a vertical wall. The ladder stands on horizontal ground.

The length of the ladder is 6 m. The bottom of the ladder is 2.25 m from the bottom of the wall.

A ladder is safe to use when the angle marked  $y$  is about  $75^\circ$ . Is the ladder safe? You must show all your working.

~~S~~ H C H T A

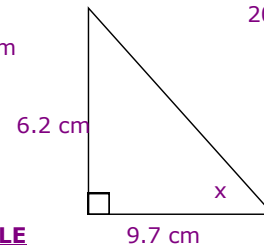
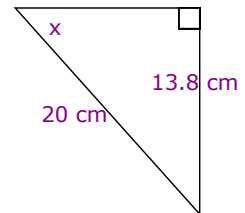
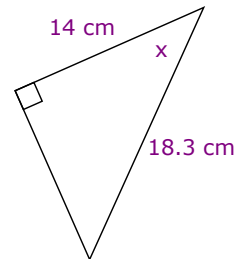
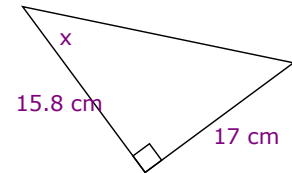
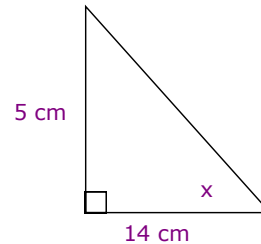
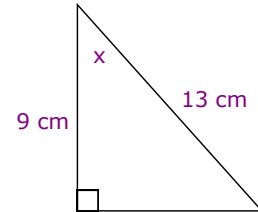
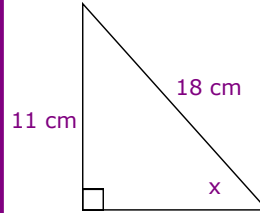
$$\cos y = \frac{2.25}{6}$$

$$y = \cos^{-1}\left(\frac{2.25}{6}\right)$$

$$y = 67.8726\dots$$

The ladder is not safe to use as the angle would be approximately  $68^\circ$  which is not 'about'  $75^\circ_{(3)}$

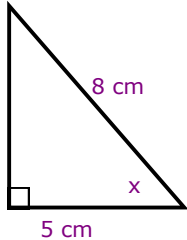
Now have a go yourself ... Work out the side of angle  $x$



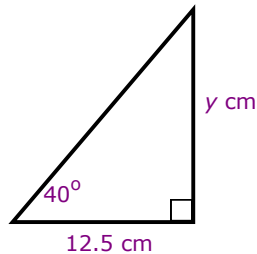
**NOT DRAWN TO SCALE**

## Exam Questions

(a) Here is a right angled triangle. Calculate the size of the angle marked  $x$ , giving your answer correct to 1 decimal place.



(b) Here is another right angled triangle. Calculate the value of  $y$ . Give your answer correct to 1 decimal place



(4)

## Ready to be marked ?

### Checklist



Correct ratio used (sin/cos/tan)



Working out shown



### Keywords

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### Things to remember ...

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### What went well ...

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### Teacher comment ..