

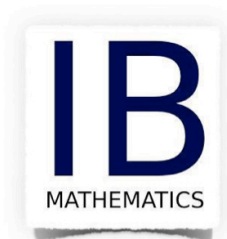
Right angled trigonometry

Checklist

Use this space to keep track of your progress with this subtopic. Print and file this document together with those from different sub-topics in a file for quick reference.

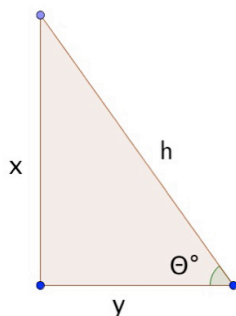
| Task | Complete (tick or cross) | Traffic Light (Red, amber or green) |
|--|--------------------------|-------------------------------------|
| Watch the video tutorials | | |
| Check you know your calculators skills | | |
| Review the slides | | |
| Review/annotate the flashcards | | |
| Complete the quiz | | |
| Complete the exam style questions | | |
| Check your solutions against the solution videos | | |
| Review any remaining areas you need to. | | |

Flashcards



Right angled Trigonometry

Flashcard



$$\sin\theta = \frac{\textit{opposite}}{\textit{hypotenuse}} = \frac{x}{h}$$

$$\cos\theta = \frac{\textit{adjacent}}{\textit{hypotenuse}} = \frac{y}{h}$$

$$\tan\theta = \frac{\textit{opposite}}{\textit{adjacent}} = \frac{x}{y}$$

DEGREE MODE!

Rearrange to make the unknown the subject

INVERSE trig functions

$$\textit{if } \sin\theta = \frac{x}{h}, \textit{ then } \theta = \sin^{-1}\left(\frac{x}{h}\right)$$

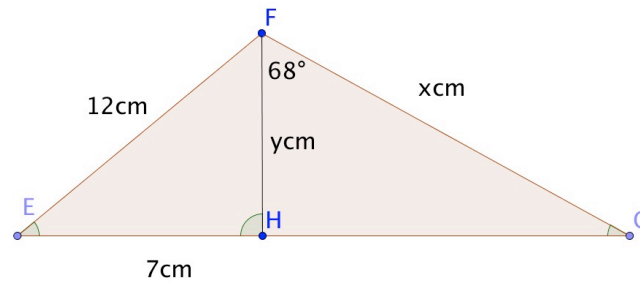
Exam Style Questions

Complete these questions on paper and then check your solutions against the video solutions on the website.

Question 1

Consider the diagram below where angle EHF is a right angle

Diagram not to scale



- Calculate the angle marked at 'E'
- Calculate the length 'y' in cm
- Calculate the length 'x' in cm

Write answers here

Working.....

(a) _____

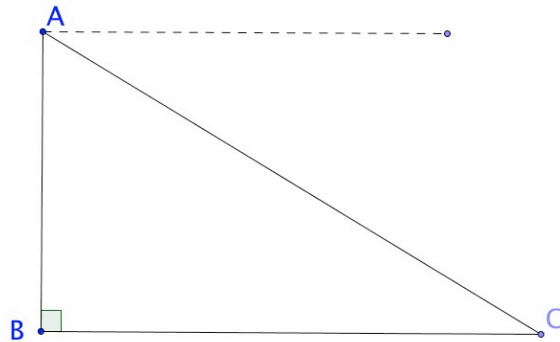
(b) _____

(c) _____

(6marks)

Question 2

A man is stood at the top of a vertical cliff at point A from where he can see a boat at point C. The angle of depression of the boat from point A is 40° . Point A is 50m above sea level at point B



- What is the angle of elevation of point A from the boat at point C
- Calculate the distance from point A to point C
- Calculate the distance from point B to point C

Write answers here

Working.....

(a) _____

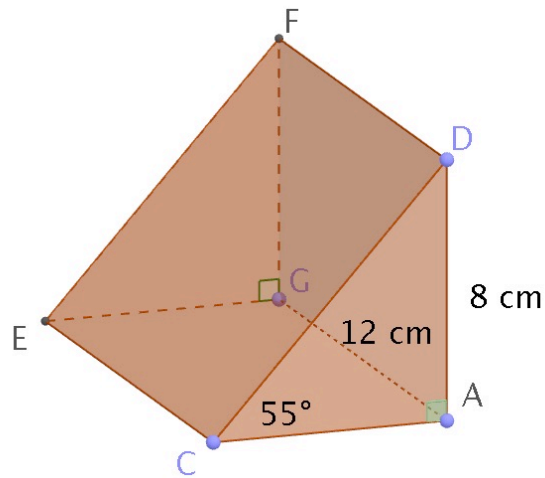
(b) _____

(c) _____

(6marks)

Question 3

Consider the prism shown in the diagram below where the length $AD = 8\text{ cm}$, $AG = 12\text{ cm}$, angle CAD is 90° and angle ACD is 55°



- Calculate the length of AC
- Calculate the length of DE
- Calculate the angle that the line ED makes with the plane $EGAC$