

Trigonometry

ANSWERS

Calculator | 30 minutes | Total marks: 20

Name Class

1

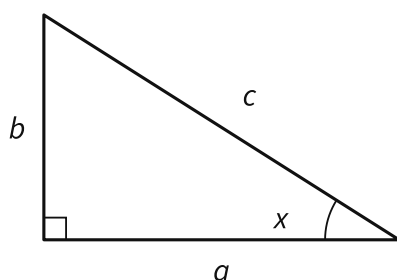
Here is a right angled triangle.

Write one word from the box next to each side.

adjacent

hypotenuse

opposite



Not drawn accurately

a adjacent (1)

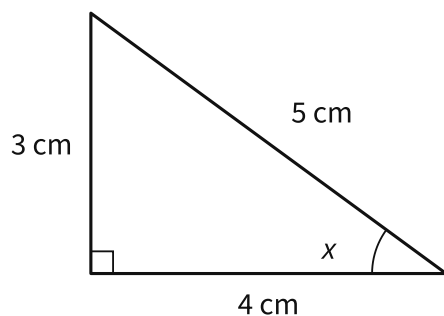
b opposite (1)

c hypotenuse (1)

[3 marks]

2

Here is a right angled triangle.



Not drawn accurately

Write each ratio as a fraction.

$\sin x = \frac{3}{5}$ (1) [1 mark]

$\cos x = \frac{4}{5}$ (1) [1 mark]

$\tan x = \frac{3}{4}$ (1) [1 mark]

3

Use your calculator to work out

(a) $\sin 30^\circ$

Answer 0.5 (1)

[1 mark]

(b) $\tan 45^\circ$

Answer 1 (1)

[1 mark]

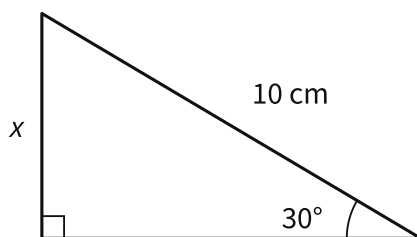
(c) $\sin 50^\circ$

Give your answer to 2 decimal places.

Answer 0.77 (1)

[1 mark]

4

Complete the working to find the length of x .

Not drawn accurately

$$\sin 30^\circ = \frac{x}{10}$$

$$x = \boxed{10} \times \sin 30^\circ$$

(1)

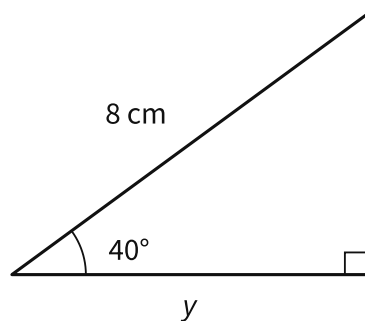
$$x = \boxed{5} \text{ cm (1)}$$

[2 marks]

5

Work out the length of y .

Give your answer to 2 decimal places.



Not drawn accurately

$$\cos 40^\circ = \frac{y}{8} \text{ (1)}$$

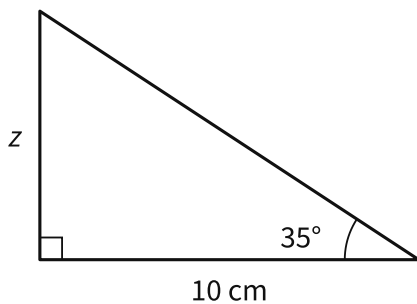
$$y = 8 \times \cos 40^\circ \text{ (1)}$$

$$y = \underline{6.13 \text{ (1)}} \text{ cm [3 marks]}$$

6

Work out the length of z .

Give your answer to 2 decimal places.



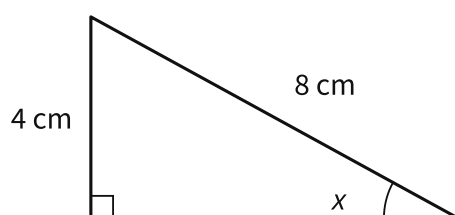
Not drawn accurately

$$\tan 35^\circ = \frac{z}{10} \quad (1)$$

$$z = 10 \times \tan 35^\circ \quad (1)$$

$$z = \underline{7.00} \quad (1) \text{ cm} \quad [3 \text{ marks}]$$

7

Work out the size of angle x .

Not drawn accurately

$$\sin x = \frac{4}{8} \quad (1)$$

$$x = \sin^{-1}(0.5) \quad (1)$$

$$x = \underline{30} \quad (1)^\circ \quad [3 \text{ marks}]$$

Question	Topic	RAG
1	I can label the sides of a right angled triangle	
2	I can write the three trigonometric ratios	
3	I can use the sin, cos and tan keys	
4	I can follow the steps to find a side	
5	I can use cosine to find a side	
6	I can use tangent to find a side	
7	I can find an angle	