

Exact Trig Values

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **23**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. Do **not** use a calculator. Diagrams are not drawn accurately.

1 Circle the value of $\sin 30^\circ$

[1 mark]

0

$\frac{1}{2}$

$\frac{\sqrt{3}}{2}$

1

2 Circle the value of $\tan 45^\circ$

[1 mark]

0

$\frac{\sqrt{2}}{2}$

1

$\sqrt{3}$

3 Write down the value of

(a) $\sin 90^\circ$

[1 mark]

Answer _____

(b) $\cos 90^\circ$

[1 mark]

Answer _____

- 4 Complete the table of exact values.

	0°	30°	45°	60°	90°
sin		$\frac{1}{2}$			1
cos	1		$\frac{\sqrt{2}}{2}$		
tan				$\sqrt{3}$	undefined

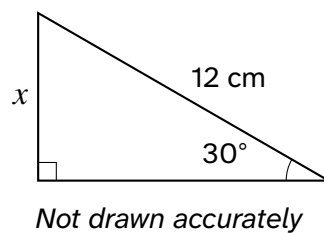
[3 marks]

- 5 Work out the value of $\sin 30^\circ + \cos 60^\circ$

[2 marks]

Answer _____

- 6 Here is a right-angled triangle.

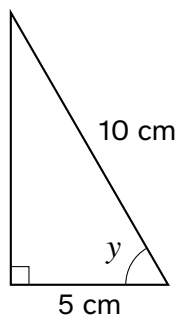


Work out the length x .

[2 marks]

Answer _____ cm

- 7 Here is a right-angled triangle.



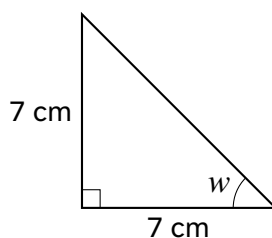
Not drawn accurately

Work out the size of angle y .

[2 marks]

Answer _____ degrees

- 8 Here is a right-angled triangle.



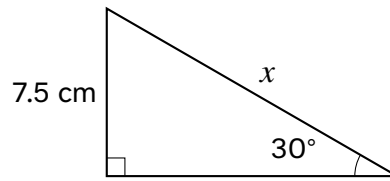
Not drawn accurately

Work out the size of angle w .

[2 marks]

Answer _____ degrees

- 9 Here is a right-angled triangle.



Not drawn accurately

Work out the length of the hypotenuse, x .

[3 marks]

$x =$ _____ cm

- 10 Show that $10 \sin 30^\circ - 3 \tan 45^\circ = 2 \cos 0^\circ$

[2 marks]

- 11 A rectangle has length $18 \sin 30^\circ$ cm and width $6 \tan 45^\circ$ cm.

Work out the area of the rectangle.

[3 marks]

Answer _____ cm^2