Exact Trig Values

SCAN ME

REVISE THIS TOPIC

For the entire booklet

1 Write down the value of sin 30°

$\frac{1}{2}$

(Total for Question 1 is 1 mark)

2 Write down the value of cos 0°

1

(Total for Question 2 is 1 mark)

3 Write down the value of tan 45°

1

(Total for Question 3 is 1 mark)

4 Write down the value of sin 60°

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

(Total for Question 4 is 1 mark)

5 Write down the value of cos 30°

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

(Total for Question 5 is 1 mark)

6 Write down the value of tan 0°

0

(Total for Question 6 is 1 mark)

7 Write down the value of sin 0°

0

(Total for Question 7 is 1 mark)

8 Write down the value of cos 60°

$\frac{1}{2}$

(Total for Question 8 is 1 mark)

9 Write down the value of tan 60°

$\sqrt{3}$

(Total for Question 9 is 1 mark)

10 Write down the value of sin 90°

1

(Total for Question 10 is 1 mark)

11 Write down the value of cos 90°

0

(Total for Question 11 is 1 mark)

12 Write down the value of tan 30°

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

(Total for Question 12 is 1 mark)

13 Write down the value of sin 45°

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

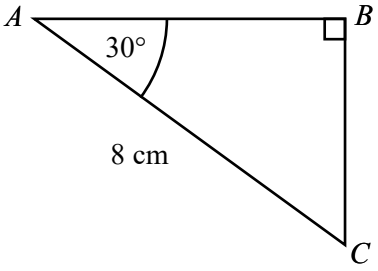
(Total for Question 13 is 1 mark)

14 Write down the value of cos 45°

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

(Total for Question 14 is 1 mark)

15 *ABC* is a right-angled triangle.



Calculate the length of *BC*.

$\sin(30) = \frac{x}{8}$

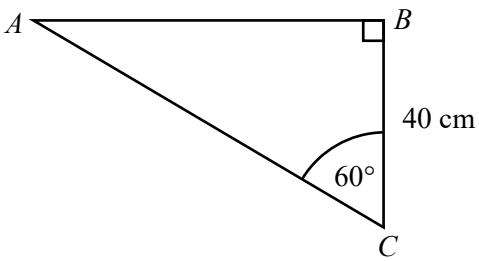
$\frac{1}{2} = \frac{x}{8}$

$x = 4$

4 ..... cm

(Total for Question 15 is 2 marks)

16 *ABC* is a right-angled triangle.



Calculate the length of *AC*.

$\cos(60) = \frac{40}{x}$

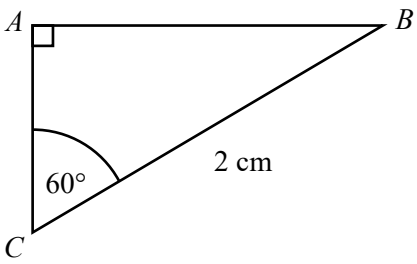
$\frac{1}{2} = \frac{40}{x}$

$x = 80$

80 ..... cm

(Total for Question 16 is 2 marks)

17 *ABC* is a right-angled triangle.



Calculate the length of *AB*.

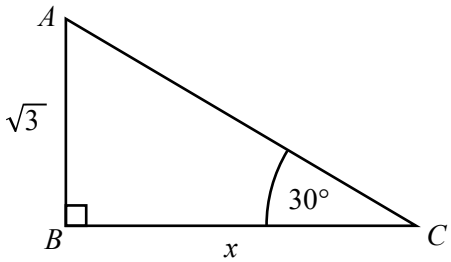
$\sin(60) = \frac{x}{2}$

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

$\sqrt{3}$ ..... cm

(Total for Question 17 is 2 marks)

18 *ABC* is a right-angled triangle.



Calculate the length of *BC*.

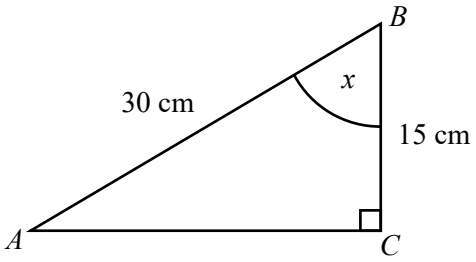
$\tan(30) = \frac{\sqrt{3}}{x}$

$\frac{\sqrt{3}}{3} = \frac{\sqrt{3}}{x}$

3 ..... cm

(Total for Question 18 is 2 marks)

19 *ABC* is a right-angled triangle.



Work out the size of the angle marked *x*.

$\cos(x) = \frac{15}{30}$

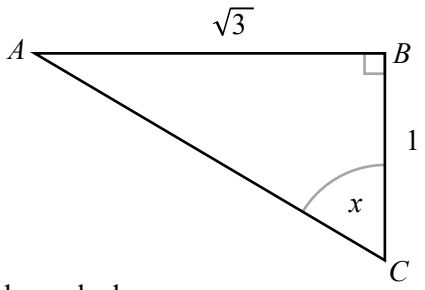
$\cos(x) = \frac{1}{2}$

$\cos(60) = \frac{1}{2}$

60 °

(Total for Question 19 is 2 marks)

20 *ABC* is a right-angled triangle.



Work out the size of the angle marked *x*.

$\tan(x) = \frac{\sqrt{3}}{1}$

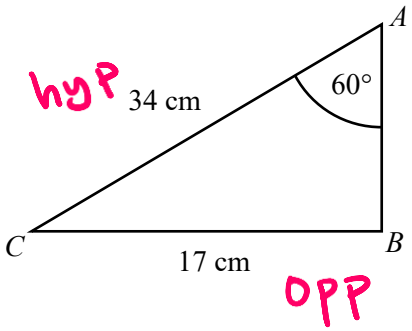
$\tan(x) = \sqrt{3}$

$\tan(60) = \sqrt{3}$

60 °

(Total for Question 20 is 2 marks)

21 ABC is a triangle.



Not drawn accurately

Is angle ABC a right angle?

Tick one box.

Yes ☐

No ☑

Not possible to tell ☐

Give a reason for your answer.

If yes then $\sin(60) = \frac{17}{34}$

but $\sin(60) = \frac{\sqrt{3}}{2}$ and $\frac{17}{34} = \frac{1}{2}$

$\frac{\sqrt{3}}{2} \neq \frac{17}{34}$ so NO

(Total for Question 21 is 2 marks)