Exact Trig Values

SCAN ME

REVISE THIS TOPIC

For the entire booklet

1 Write down the value of sin 30° **[1 mark]**

Answer $\frac{1}{2}$

2 Write down the value of cos 0° **[1 mark]**

Answer 1

3 Write down the value of tan 45° **[1 mark]**

Answer 1

4 Write down the value of sin 60° **[1 mark]**

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

5 Write down the value of cos 30° **[1 mark]**

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

6 Write down the value of tan 0° **[1 mark]**

Answer 0

7 Write down the value of sin 0° **[1 mark]**

Answer 0

7

8 Write down the value of cos 60° **[1 mark]**

Answer $\frac{1}{2}$

9 Write down the value of tan 60° **[1 mark]**

Answer $\sqrt{3}$

10 Write down the value of sin 90° **[1 mark]**

Answer 1

11 Write down the value of cos 90° **[1 mark]**

Answer 0

12 Write down the value of tan 30° **[1 mark]**

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

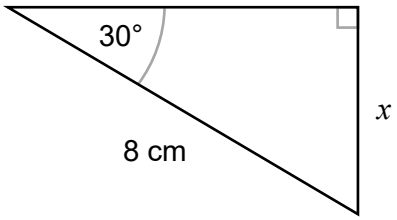
13 Write down the value of sin 45° **[1 mark]**

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

14 Write down the value of cos 45° **[1 mark]**

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

15 Use trigonometry to work out the value of x.



Not drawn accurately

[2 marks]

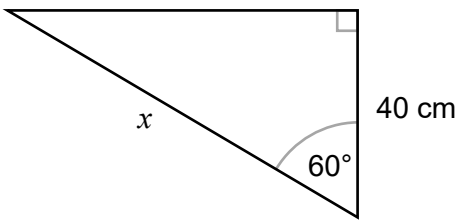
$\sin(30) = \frac{x}{8}$

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

$x = 4$

Answer 4 cm

16 Use trigonometry to work out the value of x.



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[2 marks]

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

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

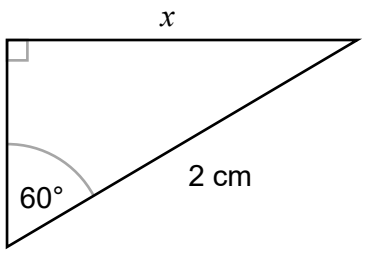
$x = 80$

Answer 80 cm

11

Turn over ▶

17 Use trigonometry to work out the value of x.



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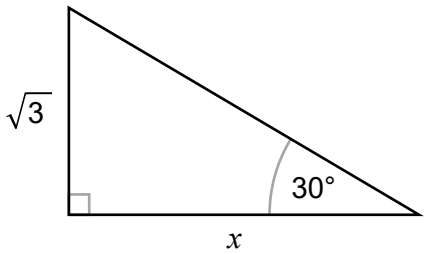
[2 marks]

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

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

Answer $\sqrt{3}$ cm

18 Use trigonometry to work out the value of x.



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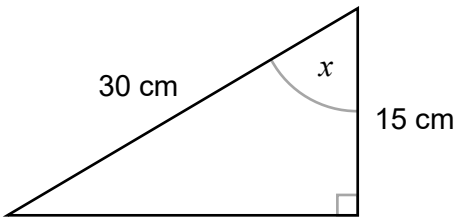
[2 marks]

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

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

Answer 3 cm

19 Use trigonometry to work out the size of angle x.



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[2 marks]

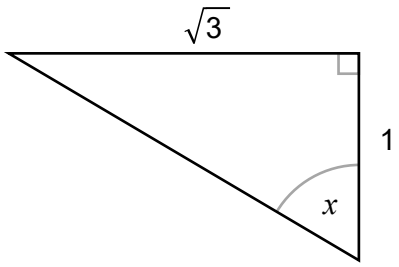
$\cos(x) = \frac{15}{30}$

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

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

Answer 60 °

20 Use trigonometry to work out the size of angle x.



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[2 marks]

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

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

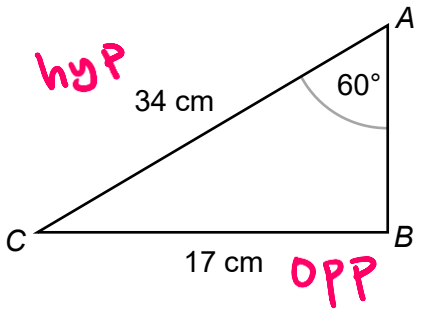
$\tan(60) = \sqrt{3}$

Answer 60 °

8

Turn over ▶

21 Here is triangle *ABC*.



Not drawn accurately

Is angle *ABC* a right angle?

Tick one box.

Yes ☐

No ☑

Not possible to tell ☐

Show working to support your answer. **[2 marks]**

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

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