HIGHER

5.20 Exact trig values: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write down the exact value of cos 60 degrees.

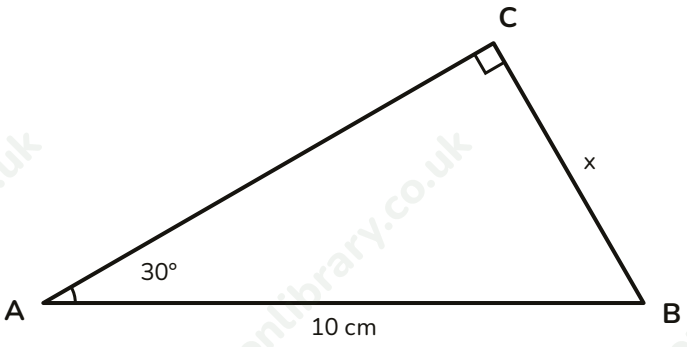
(Total for Question 1 is 1 mark)

2 Work out the exact value of sin 30 degrees plus cos 60 degrees.

(Total for Question 2 is 2 marks)

3 A right-angled triangle has hypotenuse length 10 cm and one acute angle 30 degrees. Work out the exact length of the side opposite the 30 degree angle.

Diagram NOT accurately drawn



(Total for Question 3 is 2 marks)

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4 Which of these is the exact value of cos 60?

- ☐ A) 1/2
- ☐ B) $\sqrt{3}/2$
- ☐ C) $\sqrt{2}/2$
- ☐ D) 1

(Total for Question 4 is 1 mark)

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5 Show that sin 45 degrees multiplied by $\sqrt{2}$ equals 1. You must show the steps.

(Total for Question 5 is 2 marks)

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Mark scheme · 5.20 Exact trig values: 10-minute Pack

Question 1

1/2 cao	**B1**

Answer: 1/2

Question 2

correct substitution of sin 30 = 1/2 and cos 60 = 1/2 or equivalent method	**M1**
1 cao	**A1**

Answer: 1

Question 3

use sin 30 = opposite/hypotenuse to form opposite = 10 * sin 30	**M1**
5 cm cao	**A1**

Answer: 5 cm

Question 4

A	**B1**

Answer: A (1/2)

Question 5

substitute sin 45 = $\sqrt{2}/2$ and multiply by $\sqrt{2}$ or equivalent method	**M1**
1 cao cso	**A1**

Answer: 1

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