MME

GCSE MATHEMATICS

AQA | Edexcel | OCR | WJEC

Trigonometry – Common Values

Please write clearly in block capitals

Forename:
Surname:

Materials

For this paper you must have:
- mathematical instruments

You must ***not*** use a calculator.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.

Advice

- In all calculations, show clearly how you work out your answer.

1 Calculate the following,

1(a) $\cos(30°) + \sin(60°)$

[2 marks]

Answer _____

1(b) $12\cos(60°) - 8\sin(30°)$

[2 marks]

Answer _____

1(c) $\frac{\tan(45°)}{\sin(30°)} \times 10\tan(60°)$

[2 marks]

Answer _____

1(d) $\tan(30°) + \sin(60°)$

[2 marks]

Answer _____

Turn over for next question

8

2 Calculate the following

2(a) $\tan(30°) + \sin(30°)$

[2 marks]

Answer _____

2(b) $\dfrac{\tan(45°) + \sin(30°)}{\tan(60°)} \times \cos(45°)$

[3 marks]

Answer _____

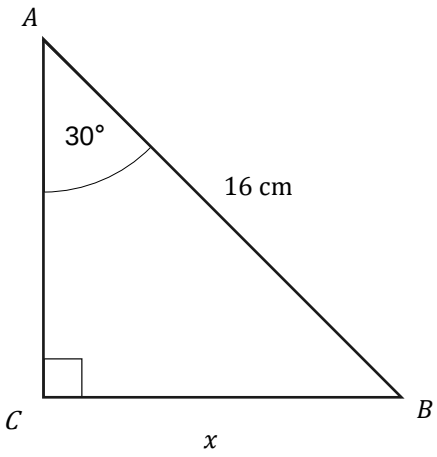
5

3 ABC is a right-angled triangle.

$\angle BAC$ is 30°

$AB = 16$ cm

Not drawn accurately



Find the exact value of x.

Show all your workings.

[2 marks]

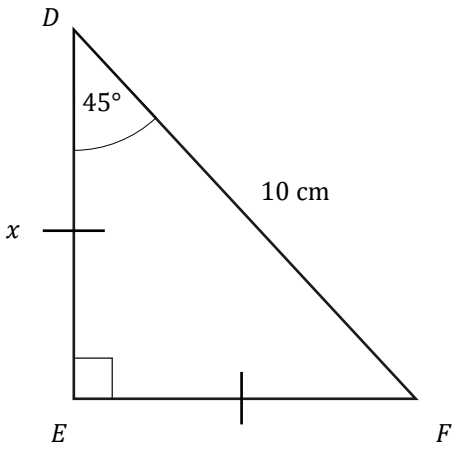
Answer _____

2

4 DEF is a right-angled triangle

$DE = EF$

$\angle EDF = 45°$



Not drawn accurately

Find the exact value of the length x

Show all your workings.

[2 marks]

Answer _____ cm

Turn over for next question

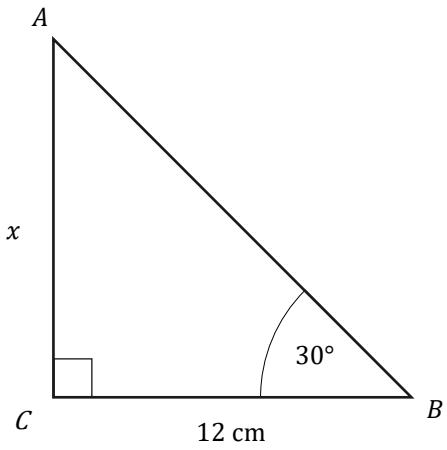
2

5 ABC is a right-angled triangle.

$\angle ABC$ is 30°

CB = 12 cm

Not drawn accurately



Find the exact value of x.

Show all your workings.

[2 marks]

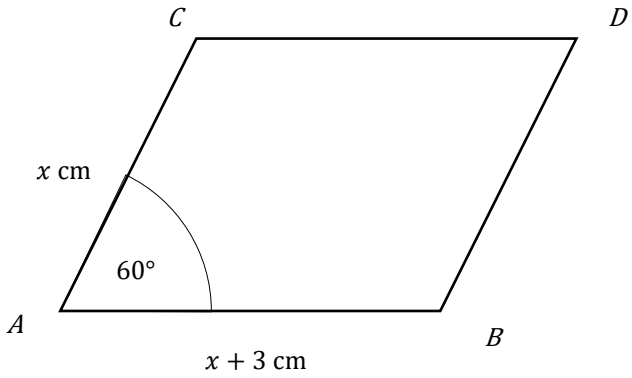
Answer _____

2

6 Below is a parallelogram

$AC = x$

$AB = x + 3$



Not drawn accurately

The area of the parallelogram is $20\sqrt{3}$

Find the value of x

[4 marks]

Answer _____

End of Questions

4

END