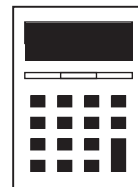


GCSE MATHEMATICS

Area of a Triangle (Trigonometry)



AQA  These questions have been taken or modified from previous AQA GCSE Mathematics Papers.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer all questions.
- You must answer the questions in the spaces provided.
- If your calculator does not have a π button, take the value of π to be 3.14 unless another value is given in the question.

Information

- The marks for questions are shown in brackets.
- The quality of your written communication is specifically assessed in questions that are indicated with an asterisk (*).

Advice

- Read each question carefully before you start to answer it.
 - In all calculations, show clearly how you work out your answer.
 - Use the number of marks for the question as a guide to the amount of time you need to spend.
 - Look at previous parts of the question, e.g. a), b), c) i) as there may be information there you need to answer later parts.
 - Check your answer is realistic and appropriate.
 - For calculator decimal numbers always write your full calculator display in the working out area and then, if you need to, round the answer on the answer line.
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This booklet was curated and modified using AQA examination papers between 2010-2016, for thecalculatorguide.com, where you can find many more booklets on further topics. All questions used are reproduced for educational purposes only.

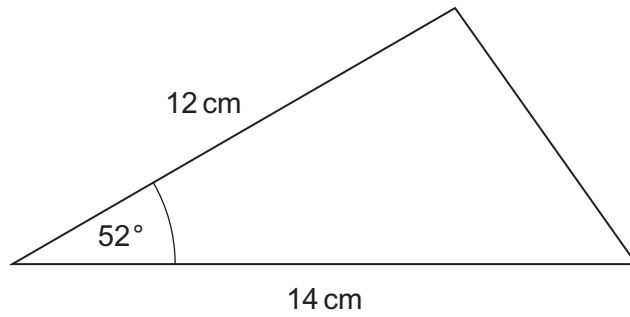


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1

Work out the area of the triangle.

Not drawn accurately



State the units of your answer.

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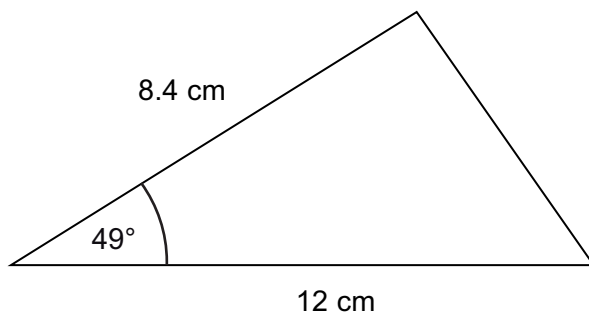
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Answer [3 marks]

2

Work out the area of the triangle.

Not drawn accurately



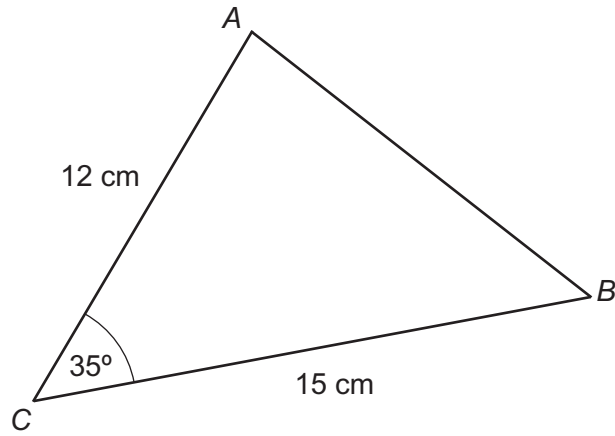
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Answer cm²

3



Not drawn accurately

Work out the area of triangle ABC .

[2 marks]

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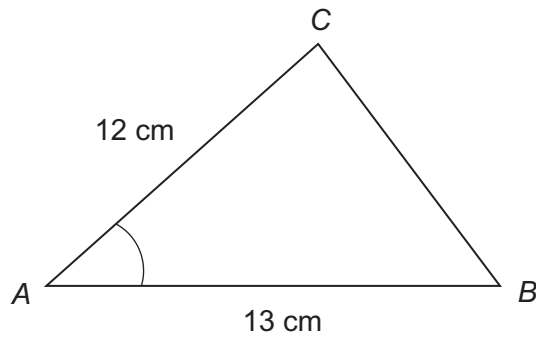
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Answer cm^2

4

The area of triangle ABC is 48 cm^2



Not drawn accurately

Work out the size of angle CAB .

[3 marks]

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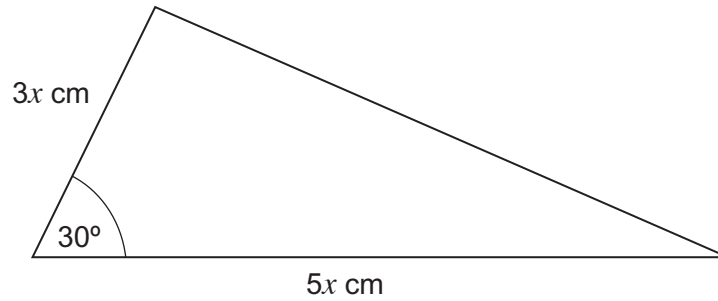
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Answer degrees

5

The area of the triangle is 45 cm^2

Not drawn
accurately



Work out the value of x .

[4 marks]

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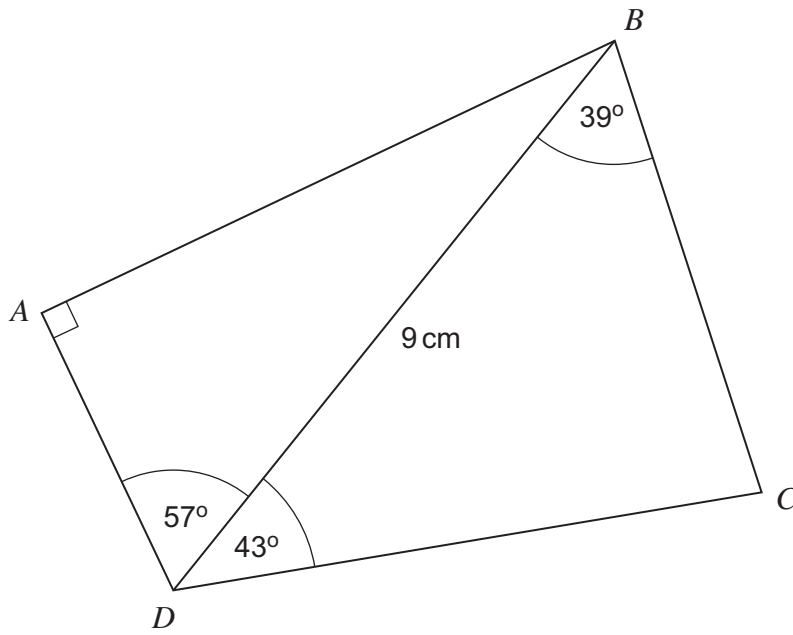
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Answer

6

Work out the area of $ABCD$.



Not drawn accurately

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Answer cm^2 [7 marks]

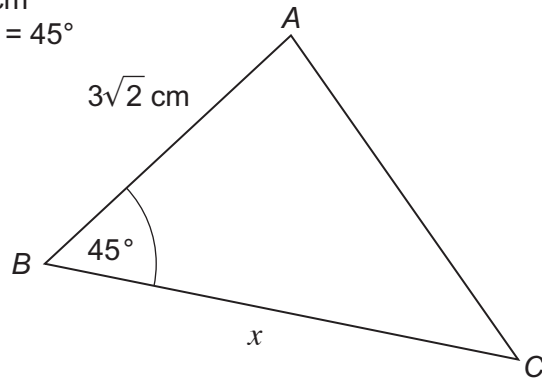
Attempt to answer Questions 7 and 8 without a calculator first.

7

ABC is a triangle.

$AB = 3\sqrt{2}$ cm

Angle $ABC = 45^\circ$



Not drawn accurately

The area of ABC is 12 cm^2

You are given that $\sin 45^\circ = \frac{1}{\sqrt{2}}$

Work out the length x .

[2 marks]

Answer _____ cm

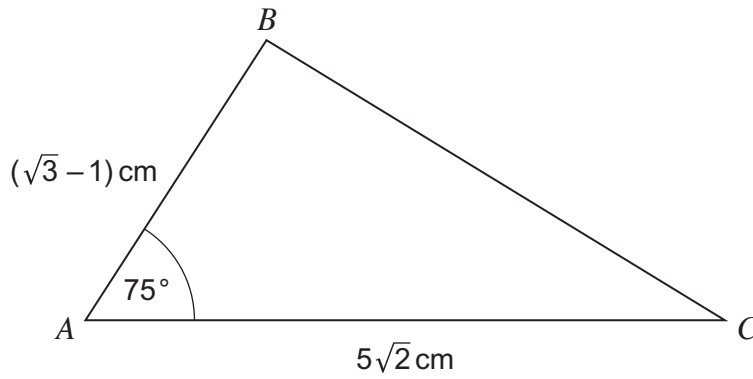
8 (a)

Show clearly that $(x - y)(x + y) \equiv x^2 - y^2$

[1 mark]

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*8 (b)



Not drawn accurately

You are given that $\sin 75^\circ = \frac{\sqrt{3} + 1}{2\sqrt{2}}$

Show that the area of triangle ABC is $2\frac{1}{2}$ cm²

[3 marks]

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