

GCSE Mathematics

F/H

Pythagoras' Theorem

GCSE Maths Practice

Total Marks	Time	Questions
58	58 min	20

Instructions:

- Do not use a calculator when you see: 
- Answer all questions in the spaces provided.
- Show all your working - marks are awarded for method as well as final answers.
- Cross through any work you do not want to be marked.
- Check your answers if you have time at the end.

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Edexcel-style questions**Q1** 

Grade 5

Edexcel style

Find the length of the hypotenuse of the triangle shown.

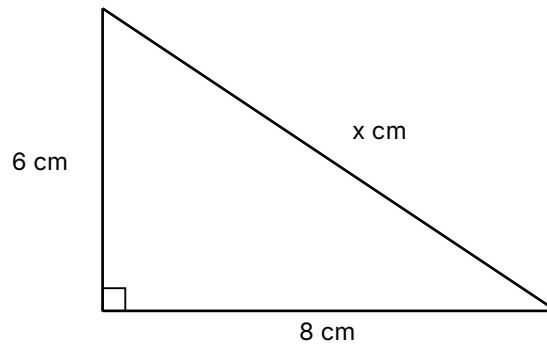


Diagram NOT accurately drawn

Answer _____

Q2

Grade 5

Edexcel style

Find the length of the missing side of the triangle shown.

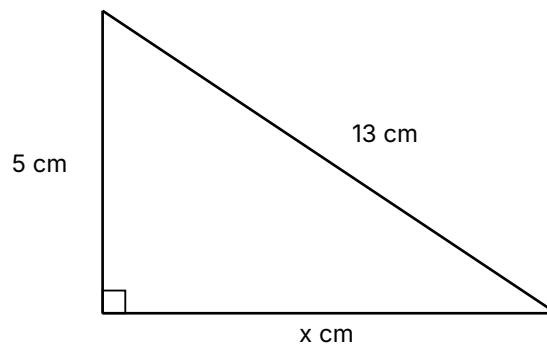


Diagram NOT accurately drawn

Answer _____

Q3

Grade 6

Edexcel style

A triangle has sides of length 9 cm, 12 cm and 15 cm, as shown. Determine whether the triangle is right-angled.

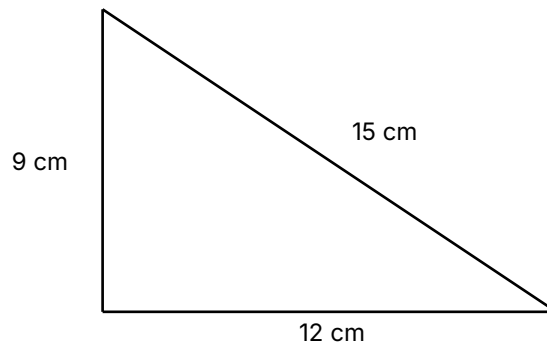


Diagram NOT accurately drawn

Answer _____

Q4

Grade 6

Edexcel style

A ladder of length 13 m leans against a vertical wall, with its foot 5 m from the base of the wall, as shown. Find how high up the wall the ladder reaches.

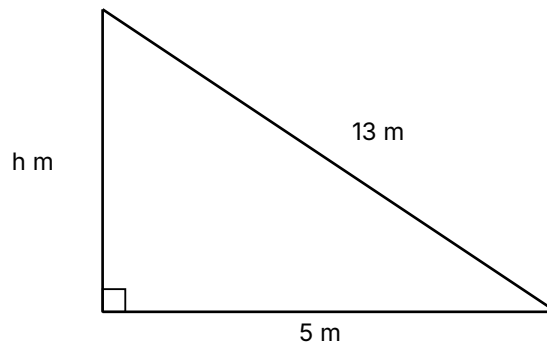


Diagram NOT accurately drawn

Answer _____

Q5

Grade 7

Edexcel style

An isosceles triangle has two equal sides of length 13 cm and a base of 10 cm, as shown. Use Pythagoras' theorem to find the perpendicular height of the triangle, then find the area of the triangle.

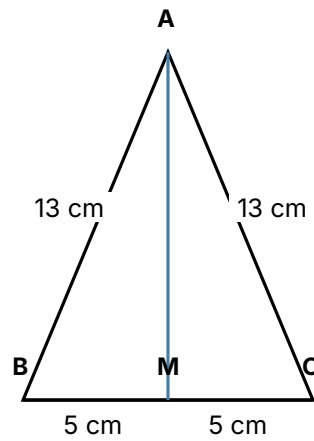


Diagram NOT accurately drawn

Answer _____

AQA-style questions**Q6** 

Grade 5

AQA style

Find the length of the hypotenuse of the triangle shown.

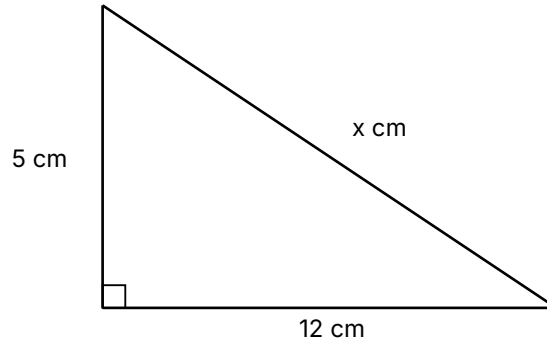


Diagram NOT accurately drawn

Answer _____

Q7 

Grade 6

AQA style

Find the length of the missing side of the triangle shown.

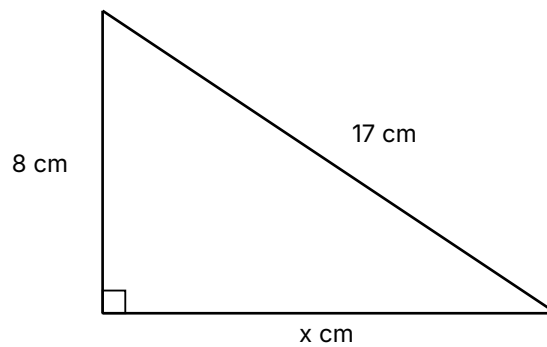


Diagram NOT accurately drawn

Answer _____

teachably

[3 marks]

Q8

Grade 6

AQA style

A triangle has sides of length 7 cm, 8 cm and 12 cm, as shown. Determine whether the triangle is right-angled.

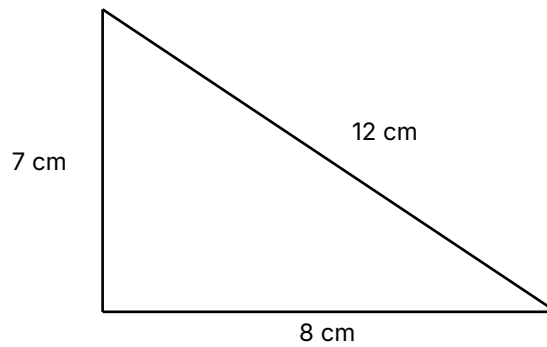


Diagram NOT accurately drawn

Answer _____

Q9

Grade 6

AQA style

A rectangular field measures 24 m by 7 m. Find the length of the diagonal path across the field.

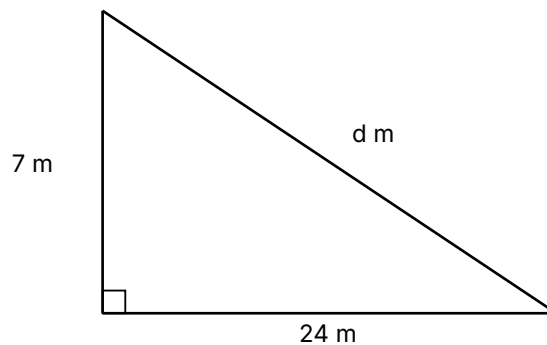


Diagram NOT accurately drawn

Answer _____

teachably

[3 marks]**Q10**

Grade 7

AQA style

A 10 m ladder leans against a vertical wall, with its foot 6 m from the base of the wall. Find how high up the wall it reaches. The foot of the ladder is then pulled further away, to 8 m from the wall. Find how far the top of the ladder slides down the wall.

Answer _____

teachably

[3 marks]

OCR-style questions**Q11** 

Grade 5

OCR style

Find the length of the hypotenuse of the triangle shown.

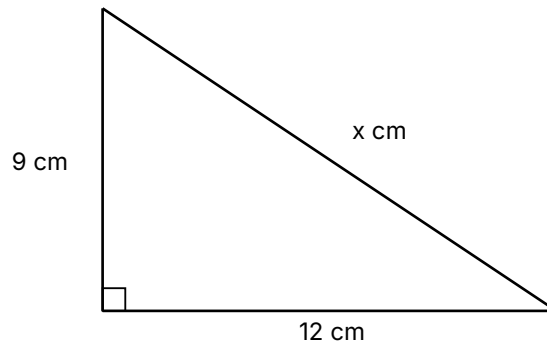


Diagram NOT accurately drawn

Answer _____

Q12

Grade 5

OCR style

Find the length of the missing side of the triangle shown.

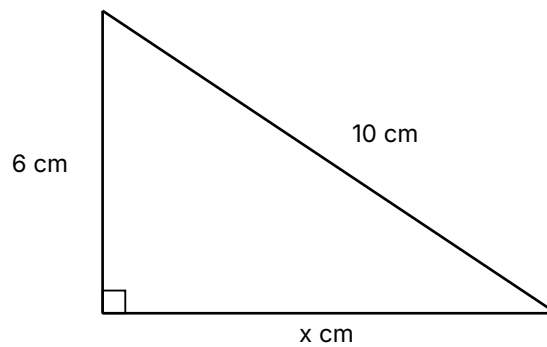


Diagram NOT accurately drawn

Answer _____

Q13

Grade 6

OCR style

A triangle has sides of length 10 cm, 24 cm and 26 cm, as shown. Determine whether the triangle is right-angled.

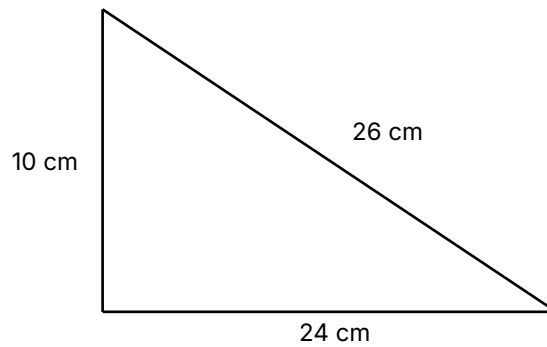


Diagram NOT accurately drawn

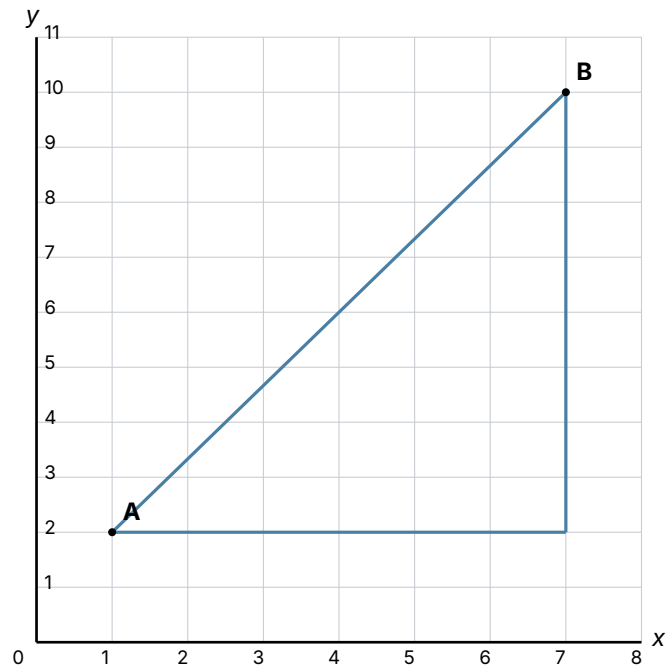
Answer _____

Q14

Grade 6

OCR style

Find the distance between the points A(1, 2) and B(7, 10) on the coordinate grid shown.



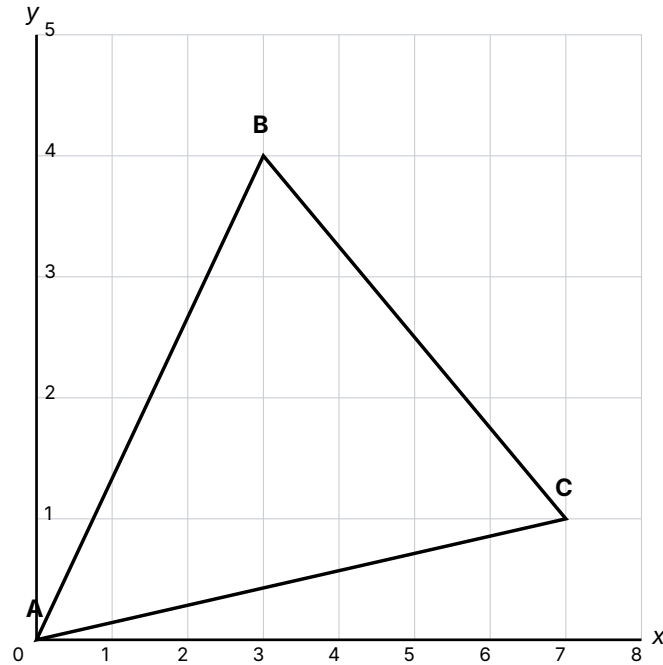
Answer _____

Q15

Grade 7

OCR style

Points $A(0, 0)$, $B(3, 4)$ and $C(7, 1)$ are plotted on the grid shown. Use Pythagoras' theorem to determine whether triangle ABC has a right angle at B.



Answer _____

Teachably-style questions**Q16** 

Grade 5

Teachably style

Find the length of the hypotenuse of the triangle shown.

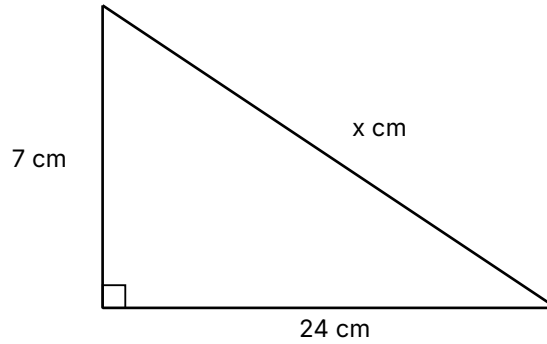


Diagram NOT accurately drawn

Answer _____

teachably

[3 marks]

Q17

Grade 6

Teachably style

Find the length of the missing side of the triangle shown.

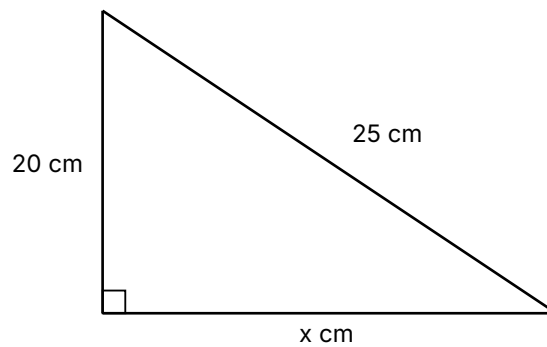


Diagram NOT accurately drawn

Answer _____

teachably**[3 marks]**

Q18

Grade 6

Teachably style

A triangle has sides of length 6 cm, 7 cm and 9 cm, as shown. Determine whether the triangle is right-angled.

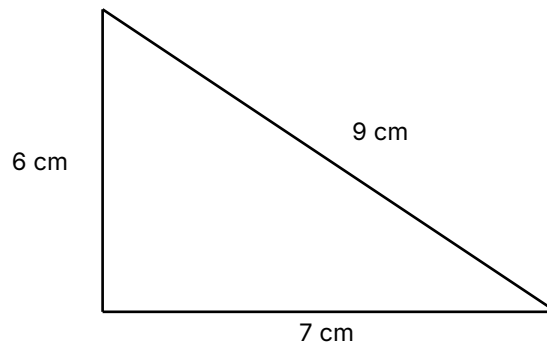


Diagram NOT accurately drawn

Answer _____

teachably

[3 marks]

Q19

Grade 7

Teachably style

A square has sides of length 6 cm. Find the exact length of the diagonal, in the form a/b where b is as small as possible.

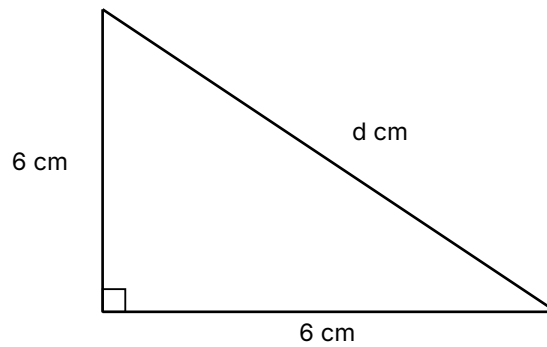


Diagram NOT accurately drawn

Answer _____

teachably

[3 marks]

Q20

Grade 7

Teachably style

A right-angled triangle has legs of exact length $\sqrt{8}$ cm and $\sqrt{28}$ cm. Find the exact length of the hypotenuse, simplified as far as possible.

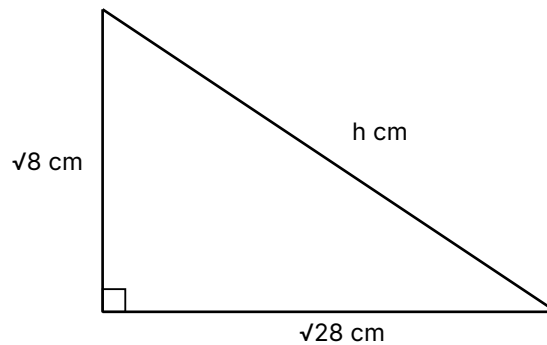


Diagram NOT accurately drawn

Answer _____

teachably

[2 marks]**END OF PAPER****Want help from an expert maths tutor?**

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