



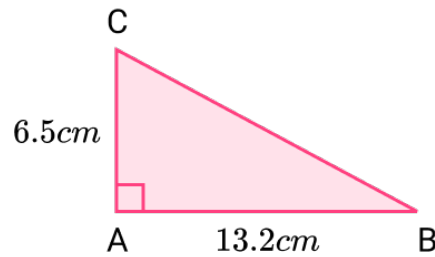
THIRD SPACE
LEARNING

GCSE Exam Questions

Pythagoras' Theorem |
Geometry & Measure

GCSE Exam Questions: Pythagoras' Theorem

- 1) ABC is a right-angled triangle.



Calculate the length of BC .

Give your answer correct to 3 significant figures.

(3 marks)

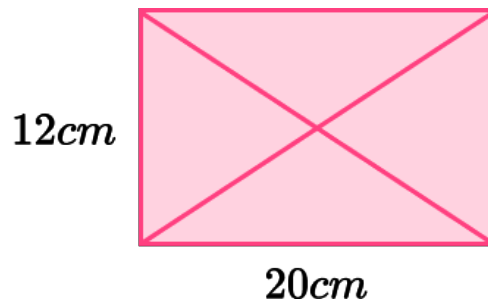
- 2) Triangle ABC has a perimeter 17cm .

$$AB = 4\text{cm} \quad BC = 6\text{cm}$$

By calculation, deduce whether triangle ABC is a right-angled triangle.

(4 marks)

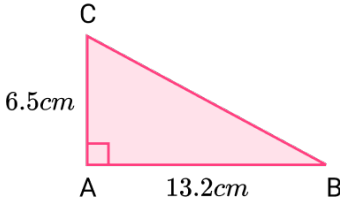
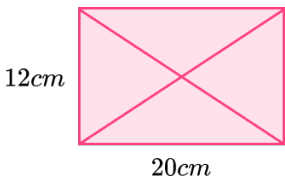
- 3) A frame is made from wire. The frame is in the shape of a rectangle 12cm by 20cm . The diagonals of the rectangle are also made from wire.



Calculate the total length of wire needed to make the frame and the diagonals. Give your answer correct to 1 decimal place.

(4 marks)

GCSE Exam Questions: Pythagoras' Theorem Answers

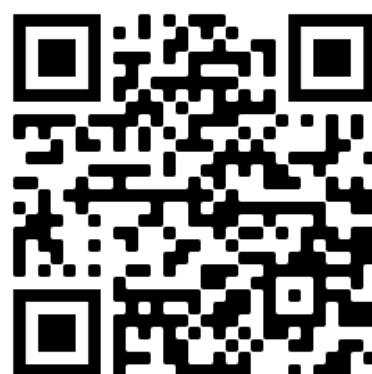
	Question	Answer	Marks
1)	<p>ABC is a right-angled triangle.</p>  <p>Calculate the length of BC. Give your answer correct to 3 significant figures.</p>	$6.5^2 + 13.2^2 = 216.49$ $\sqrt{216.49}$ $BC = 14.71359... = 14.7cm$	<p>(1)</p> <p>(1)</p> <p>(1)</p>
2)	<p>Triangle ABC has a perimeter 17 cm. $AB = 4cm$ $BC = 6cm$</p> <p>By calculation, deduce whether triangle ABC is a right-angled triangle.</p>	$17 - (4 + 6) = 7$ The third side is $7cm$ and is the longest so it is the hypotenuse. $4^2 + 6^2 = 52$ $\sqrt{52} = 7.211... \text{ or } 7^2 = 49$ Triangle ABC is NOT a right-angled triangle as $4^2 + 6^2 \neq 7^2$ oe	<p>(1)</p> <p>(1)</p> <p>(1)</p> <p>(1)</p>
3)	<p>A frame is made from wire. The frame is in the shape of a rectangle $12cm$ by $20cm$. The diagonal of the rectangle is also made from wire.</p>  <p>Calculate the total length of wire needed to make the frame and the diagonals. Give your answer correct to 1 decimal place</p>	$12^2 + 20^2 = 544$ $\sqrt{544} = 23.3238...$ $2 \times (23.3238... + 12 + 20)$ $110.647... = 110.6cm$	<p>(1)</p> <p>(1)</p> <p>(1)</p> <p>(1)</p>

Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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