ENGLAND GCSE MATHS EDEXCEL HIGHER · UNIT 11 · 10 QUESTIONS

Geometry, Pythagoras, Trigonometry and Vectors — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A rocket climbs at an angle of 30° to the ground and travels 200 m. Its height is**

- **A** 110
- **B** 90
- **C** 200
- **D** 100

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2 **A brown dog walks 5 m east and then 12 m north. How far is it from its starting point?**

- A 14
- B 13
- C 12
- D 17

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3 **The vector a = (3, 4) and the vector b = (2, 2). The vector a + b is**

- A (1, 2)
- B (5, 2)
- C (6, 6)
- D (5, 6)

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4 **Two sides of a triangle are 8 cm and 10 cm, with an included angle of 60°. The third side is, to one decimal place, about**

- A 10.2 cm
- B 9.2 cm
- C 12.8 cm
- D 18 cm

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5 **In a right-angled triangle, the hypotenuse is 8 cm and one angle is 60°. The side next to the 60° angle is**

- A 4 cm
- B 5 cm
- C 8 cm
- D 3 cm

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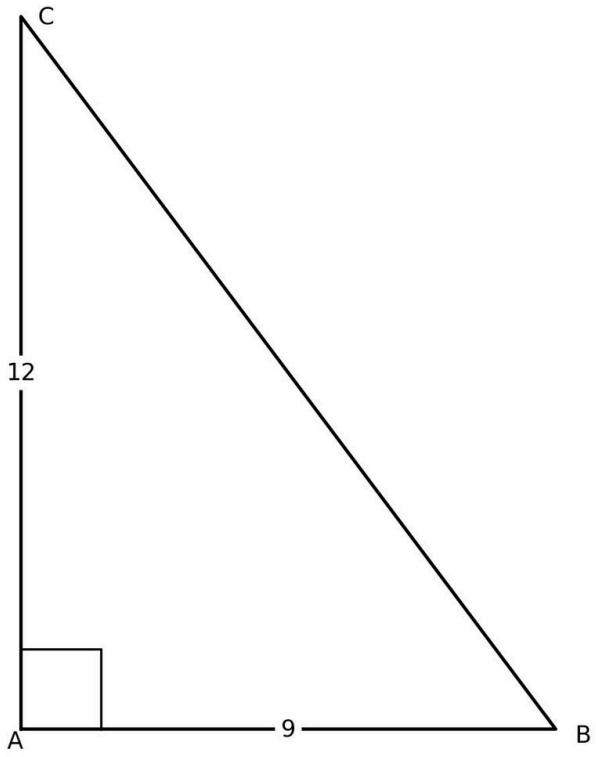
6 **A right-angled triangle has one side of length 9 cm and the other side of length 12 cm. The hypotenuse is**



- **A** 16 cm
- **B** 21 cm
- **C** 14 cm
- **D** 15 cm

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7 **In a triangle, side a = 8 cm is opposite an angle of 30° and side b is opposite an angle of 45°. The length of side b is**

- **A** 8
- **B** $8\sqrt{2}$
- **C** $16\sqrt{2}$
- **D** $4\sqrt{2}$

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8 **The vector (6, 8) has magnitude**

- **A** 11
- **B** 10
- **C** 9
- **D** 14

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9 A kite string is 14 m long and makes an angle of 30° with the ground. The height of the kite is

- A 7
- B 14
- C 6
- D 8

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10 A sailing ship sails 8 km east and then 15 km north. How far is it from its starting point?

- A 23
- B 16
- C 18
- D 17

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ANSWER KEY

1.	D	**5.**	A	**9.**	A
2.	B	**6.**	D	**10.**	D
3.	D	**7.**	B		
4.	B	**8.**	B		

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