ENGLAND GCSE MATHS OCR 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 passenger aeroplane takes off at an angle of 30° and flies 200 m. Its height is**

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

Understand It with Pulse | Flag a mistake

2 **A sailing ship sails 3 km east and then 4 km north. How far is it from its starting point?**

- A 4
- B 7
- C 5
- D 6

Understand It with Pulse | Flag a mistake

3 **A rocket climbs at an angle of 30° to the ground and travels 300 m. Its height is**

- A 160
- B 140
- C 300
- D 150

Understand It with Pulse | Flag a mistake

4 **The vector a = (3, 2) and the vector b = (4, 5). The vector a + b is**

- A (-1, -3)
- B (7, 7)
- C (7, -3)
- D (8, 7)

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5 **Two sides of a triangle are 6 cm and 8 cm, with an included angle of 60°. The third side is, to one decimal place, about**

- A 8.2 cm
- B 14 cm
- C 7.2 cm
- D 10 cm

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

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

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7 **A cuboid is 6 cm by 8 cm by 24 cm. The longest diagonal is**

- A 27 cm
- B 25 cm
- C 38 cm
- D 26 cm

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

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

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9 **The vector (8, 15) has magnitude**

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

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10 **In a right-angled triangle, the hypotenuse is 14 cm and one angle is 30°. The side opposite the 30° angle is**

A 6 cm

B 14 cm

C 7 cm

D 8 cm

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ANSWER KEY

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

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