ENGLAND GCSE MATHS EDEXCEL FOUNDATION · UNIT 11 · 25 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 brown dog walks 5 m east and then 12 m north. How far is it from its starting point?**

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

Understand It with Pulse | Flag a mistake

2 **A kite string is 8 m long and makes an angle of 30° with the ground. The height of the kite is**

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

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 150
- C 140
- D 300

Understand It with Pulse | Flag a mistake

4 **A passenger aeroplane takes off at an angle of 30° and flies 400 m. Its height is**

A 190

B 200

C 400

D 210

Understand It with Pulse | Flag a mistake

5 **A sailing ship sails 9 km east and then 12 km north. How far is it from its starting point?**

A 14

B 16

C 21

D 15

Understand It with Pulse | Flag a mistake

6

A ladder 15 m long leans against a wall. Its foot is 9 m from the wall. How high up the wall does it reach?

A 17

B 12

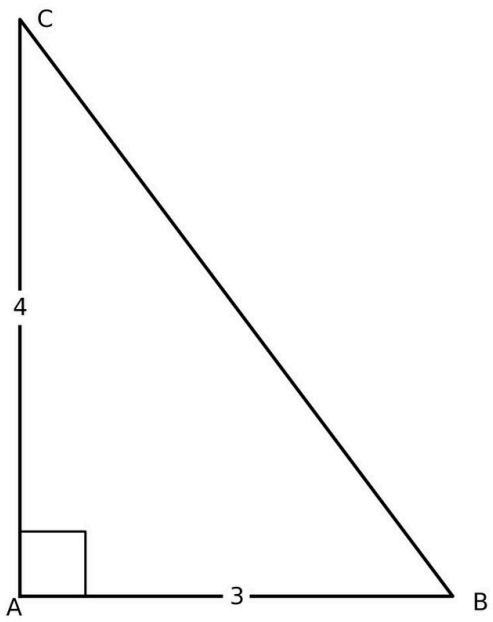
C 9

D 14

Understand It with Pulse

Flag a mistake

7 **A right-angled triangle has one side of length 3 cm and the other side of length 4 cm. The hypotenuse is**



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

Understand It with Pulse | Flag a mistake

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

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

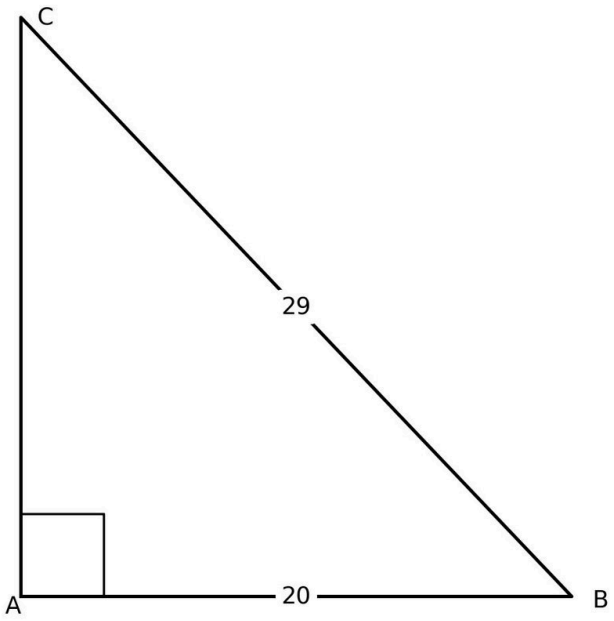
Understand It with Pulse | Flag a mistake

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

- A 5 cm
- B 6 cm
- C 4 cm
- D 10 cm

Understand It with Pulse | Flag a mistake

10 **A right-angled triangle has a hypotenuse of 29 cm and one side of length 20 cm. The other side is**



- **A** 21 cm
- **B** 22 cm
- **C** 9 cm
- **D** 20 cm

Understand It with Pulse **Flag a mistake**

11 **In a right-angled triangle, the hypotenuse is 14 cm and one angle is 60°. The side next to the 60° angle is**

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

Understand It with Pulse | Flag a mistake

12 **In a right-angled triangle, one angle is 45° and the side next to it is 10 cm. The side opposite the 45° angle is**

- A 11 cm
- B 20 cm
- C 9 cm
- D 10 cm

Understand It with Pulse | Flag a mistake

13 **The vector a = (5, 3) and the vector b = (3, 1). The vector a + b is**

A (2, 2)

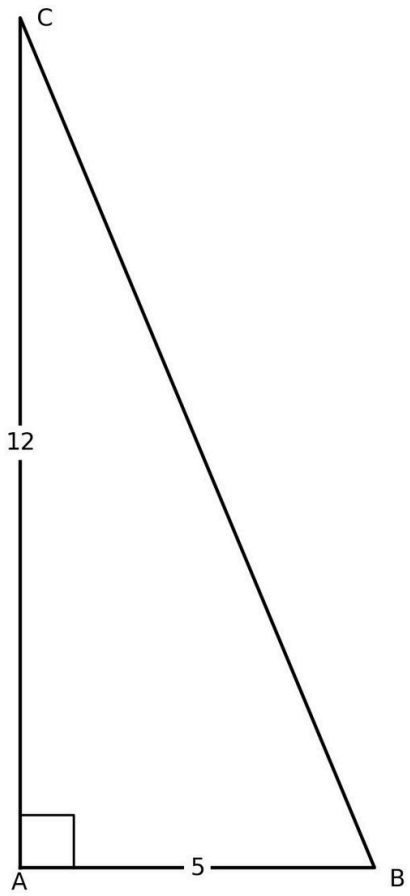
B (8, 2)

C (9, 4)

D (8, 4)

Understand It with Pulse | Flag a mistake

14 **A right-angled triangle has one side of length 5 cm and the other side of length 12 cm. The hypotenuse is**



A 14 cm

B 13 cm

C 12 cm

D 17 cm

Understand It with Pulse | Flag a mistake

15 **In a right-angled triangle, the hypotenuse is 16 cm and one angle is 30°. The side opposite the 30° angle is**

A 8 cm

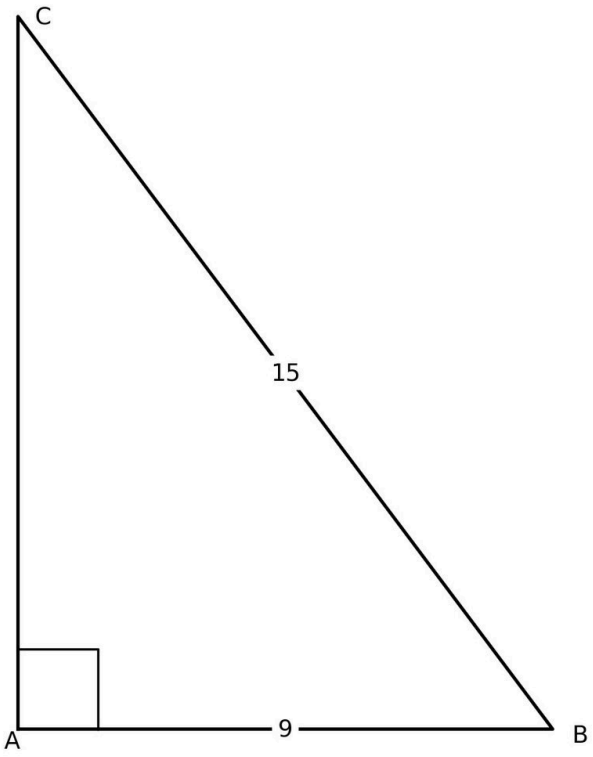
B 16 cm

C 9 cm

D 7 cm

Understand It with Pulse | Flag a mistake

16 **A right-angled triangle has a hypotenuse of 15 cm and one side of length 9 cm. The other side is**



- **A** 12 cm
- **B** 13 cm
- **C** 6 cm
- **D** 11 cm

Understand It with Pulse | Flag a mistake

17 **In a right-angled triangle, the hypotenuse is 10 cm and one angle is 60°. The side next to the 60° angle is**

- A 5 cm
- B 6 cm
- C 4 cm
- D 10 cm

Understand It with Pulse | Flag a mistake

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

- A (5, 3)
- B (1, 3)
- C (5, 7)
- D (6, 7)

Understand It with Pulse | Flag a mistake

19 **The vector (9, 12) has magnitude**

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

Understand It with Pulse | Flag a mistake

20 **In a right-angled triangle, the hypotenuse is 6 cm and one angle is 30°. The side opposite the 30° angle is**

- A 3 cm
- B 6 cm
- C 4 cm
- D 2 cm

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

22 **The vector a = (4, 4) and the vector b = (1, 1). The vector a + b is**

- A (6, 5)
- B (3, 3)
- C (5, 5)
- D (5, 3)

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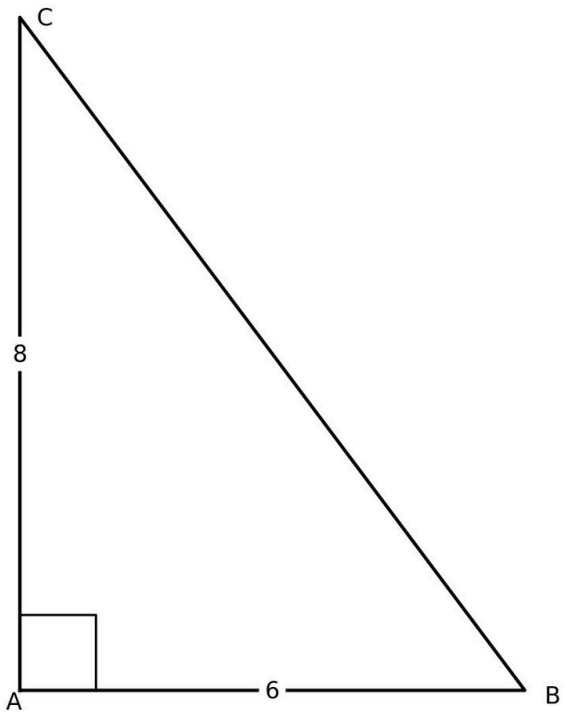
23 **A right-angled triangle has one side of length 6 cm and the other side of length 8 cm. The hypotenuse is**



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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

25 **In a right-angled triangle, one angle is 45° and the side next to it is 5 cm. The side opposite the 45° angle is**

- A 10 cm
- B 6 cm
- C 5 cm
- D 4 cm

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. C
3. B
4. B
5. D
6. B
7. B
8. B
9. A
10. A
11. D
12. D
13. D
14. B
15. A
16. A
17. A
18. C
19. B
20. A
21. D
22. C
23. B
24. C
25. C

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