ENGLAND GCSE MATHS AQA 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 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

Understand It with Pulse | Flag a mistake

2 **A brown dog walks 3 m east and then 4 m north. How far is it from its starting point?**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

4 **A kite string is 12 m long and makes an angle of 30° with the ground. The height of the kite is**

- A 6
- B 5
- C 7
- D 12

Understand It with Pulse | Flag a mistake

5 **A passenger aeroplane takes off at an angle of 30° and flies 300 m. Its height is**

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

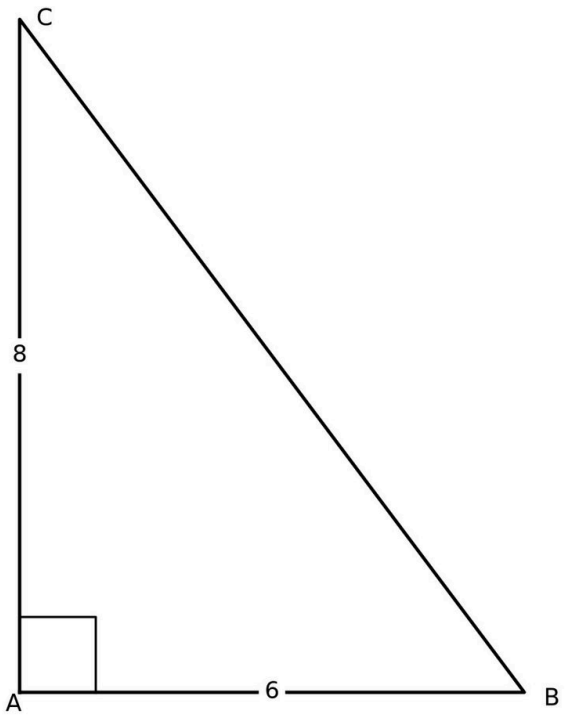
Understand It with Pulse | Flag a mistake

6 **A ladder 13 m long leans against a wall. Its foot is 5 m from the wall. How high up the wall does it reach?**

- A 15
- B 12
- C 14
- D 5

Understand It with Pulse | Flag a mistake

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



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

Understand It with Pulse | Flag a mistake

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

A 14

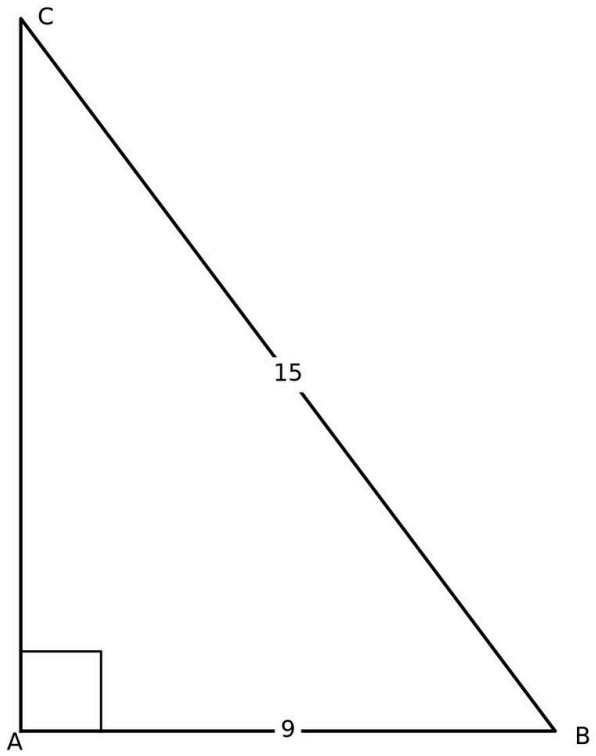
B 9

C 11

D 10

Understand It with Pulse | Flag a mistake

9 **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** 6 cm
- **C** 13 cm
- **D** 11 cm

Understand It with Pulse | Flag a mistake

10 **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 8 cm
- C 4 cm
- D 5 cm

Understand It with Pulse | Flag a mistake

11 **In a right-angled triangle, one angle is 45° and the side next to it is 8 cm. The side opposite the 45° angle is**

- A 8 cm
- B 16 cm
- C 9 cm
- D 7 cm

Understand It with Pulse | Flag a mistake

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

- A (6, 5)
- B (-2, -1)
- C (7, 5)
- D (6, -1)

Understand It with Pulse | Flag a mistake

13 **In a right-angled triangle, the hypotenuse is 8 cm and one angle is 30°. The side opposite the 30° angle is**

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

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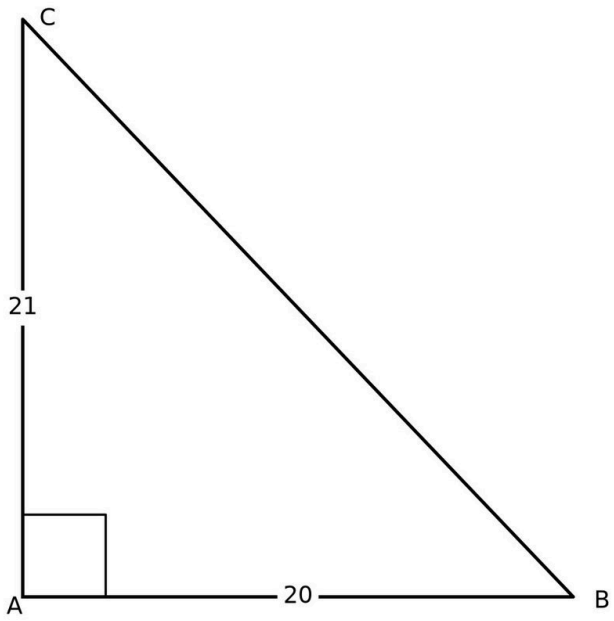
14 **A right-angled triangle has one side of length 20 cm and the other side of length 21 cm. The hypotenuse is**



A 29 cm

B 41 cm

C 28 cm

D 30 cm

Understand It with Pulse | Flag a mistake

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

A 15

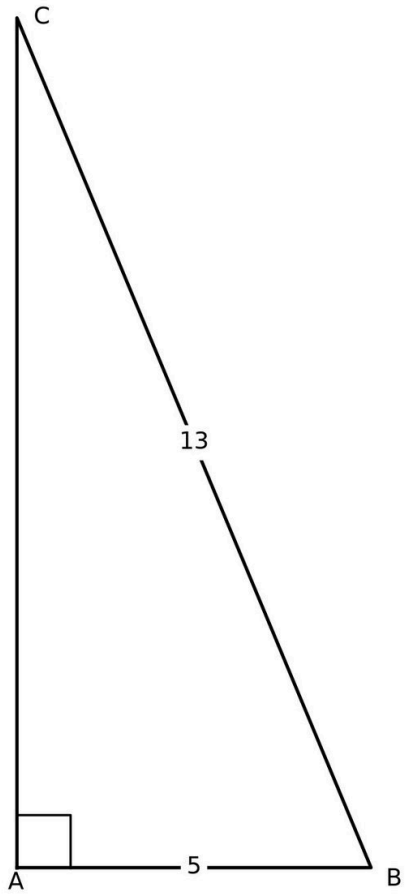
B 21

C 16

D 14

Understand It with Pulse | Flag a mistake

16 **A right-angled triangle has a hypotenuse of 13 cm and one side of length 5 cm. The other side is**



- **A** 13 cm
- **B** 11 cm
- **C** 8 cm
- **D** 12 cm

Understand It with Pulse | Flag a mistake

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

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

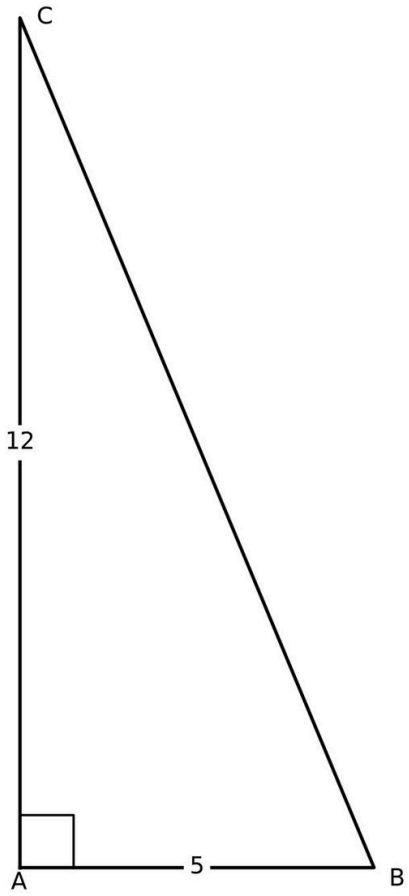
Understand It with Pulse | Flag a mistake

18 **The vector a = (2, 4) and the vector b = (1, 3). The vector a + b is**

- A (3, 1)
- B (4, 7)
- C (1, 1)
- D (3, 7)

Understand It with Pulse | Flag a mistake

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



A 13 cm

B 14 cm

C 12 cm

D 17 cm

Understand It with Pulse | Flag a mistake

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

A 16

B 17

C 18

D 23

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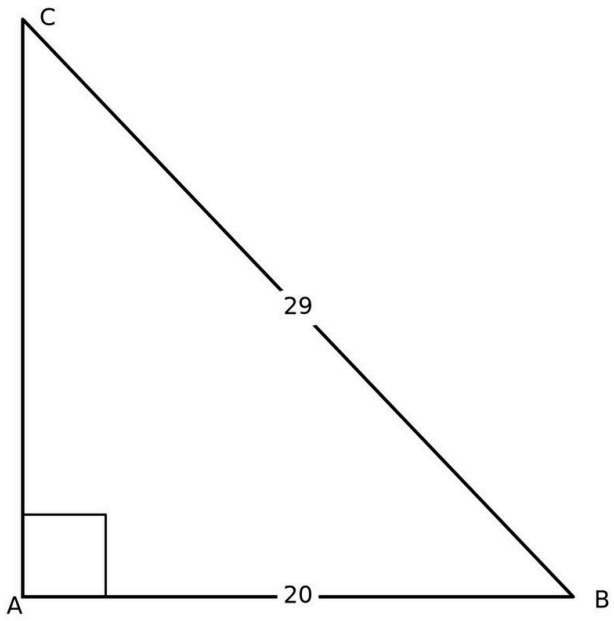
21 **A right-angled triangle has a hypotenuse of 29 cm and one side of length 20 cm. The other side is**



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

Understand It with Pulse | Flag a mistake

22 **In a right-angled triangle, the hypotenuse is 20 cm and one angle is 60°. The side next to the 60° angle is**

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

Understand It with Pulse | Flag a mistake

23 **The vector a = (1, 2) and the vector b = (2, 3). The vector a + b is**

- A (-1, -1)
- B (3, -1)
- C (4, 5)
- D (3, 5)

Understand It with Pulse | Flag a mistake

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

A 4 cm

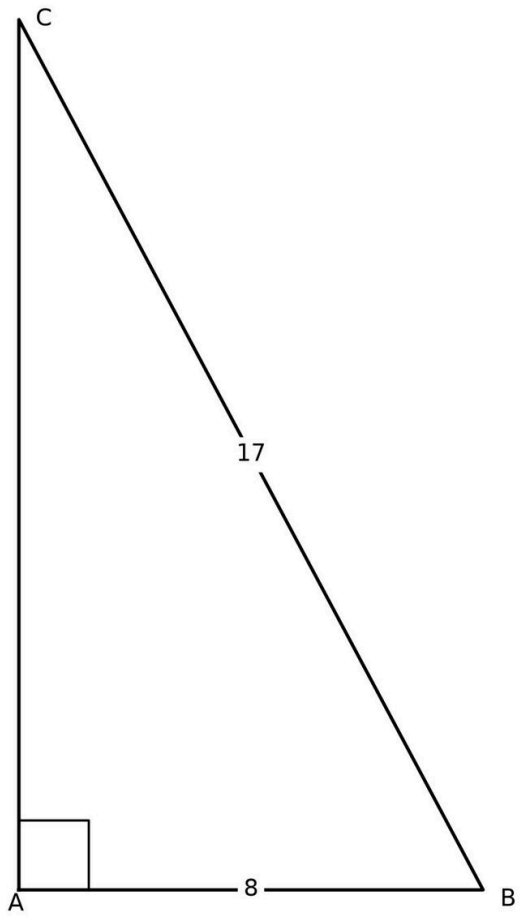
B 5 cm

C 6 cm

D 10 cm

Understand It with Pulse | Flag a mistake

25 **A right-angled triangle has a hypotenuse of 17 cm and one side of length 8 cm. The other side is**



A 9 cm

B 14 cm

C 16 cm

D 15 cm

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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