ENGLAND GCSE MATHS AQA HIGHER · UNIT 9 · 25 QUESTIONS

Geometry, Angles, Shapes, Constructions and Similarity — 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 kite has angles 90, 90, 80 and one more. The fourth angle is**

- A 110
- B 280
- C 80
- D 100

Understand It with Pulse | Flag a mistake

2 **A ladder leans against a wall, making an angle of 60 degrees with the ground. The angle between the ladder and the wall is**

- A 120
- B 40
- C 60
- D 30

Understand It with Pulse | Flag a mistake

3 **A Ferris wheel has 10 equally spaced gondolas. The angle between neighbouring gondolas is**

- A 10
- B 31
- C 41
- D 36

Understand It with Pulse | Flag a mistake

4 **A castle is 12 m tall. Its model is 30 cm tall. The scale factor from the model to the real castle is**

- A 40
- B 50
- C 80
- D 30

Understand It with Pulse | Flag a mistake

5 **A set square is a right-angled triangle with angles 90 degrees, 60 degrees and one more. The third angle is**

- A 40
- B 60
- C 150
- D 30

Understand It with Pulse | Flag a mistake

6 **The sail of a sailing ship is a right-angled triangle with sides 9 m, 12 m and 15 m. A similar sail has a shortest side of 18 m. Its longest side is**

- A 24
- B 12
- C 30
- D 45

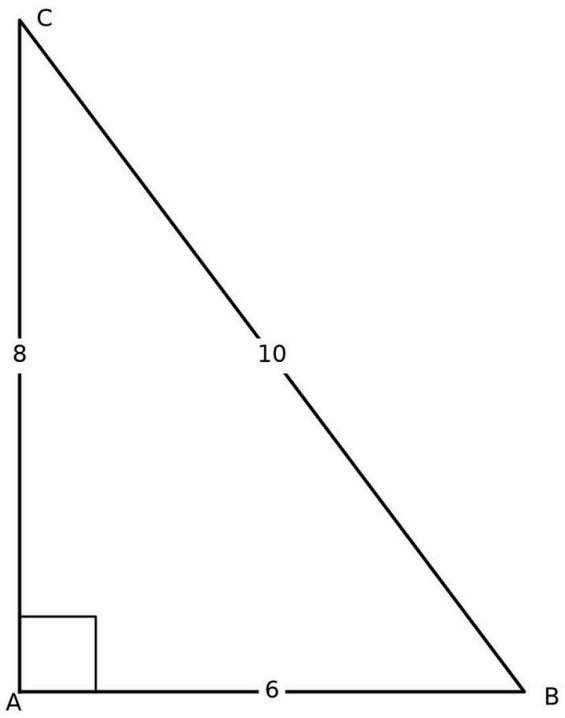
Understand It with Pulse | Flag a mistake

7 **Two straight lines cross. One of the angles formed is 50°. The angle vertically opposite it is**

- A 90°
- B 50°
- C 310°
- D 130°

Understand It with Pulse | Flag a mistake

8 **The diagram shows a right-angled triangle with sides 6 cm, 8 cm and 10 cm. A similar triangle has a shortest side of 18 cm. Its longest side is**



A 30 cm

B 10 cm

C 13 cm

D 40 cm

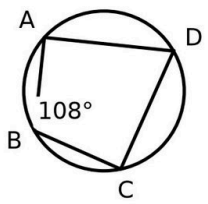
Understand It with Pulse | Flag a mistake

9 **Two angles sit on a straight line. One angle is 115°. The other angle is**

- **A** 75°
- **B** 115°
- **C** 65°
- **D** 245°

Understand It with Pulse | Flag a mistake

10 **In a quadrilateral in a circle, one angle is 108°. The opposite angle is**



- **A** 82°
- **B** 72°
- **C** 252°
- **D** 108°

Understand It with Pulse | Flag a mistake

11 **A point is translated by the vector binom-3-2. The point moves**

A 3 left and 2 down

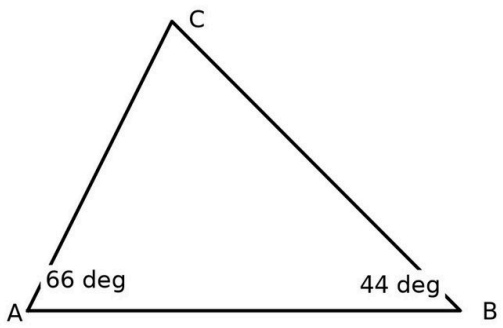
B 2 up and 3 right

C 3 left and 2 up

D 3 right and 2 down

Understand It with Pulse | Flag a mistake

12 **A triangle has two angles of 66° and 44°. The third angle is**



- **A** 70°
- **B** 110°
- **C** 114°
- **D** 85°

Understand It with Pulse | Flag a mistake

13 **Two triangles are congruent if they match by**

A angle, angle, angle

B side, side, side, side

C side, side, angle

D side, angle, side

Understand It with Pulse | Flag a mistake

14 **Three angles meet at a point. Two of them are 48° and 98°. The third angle is**

A 214°

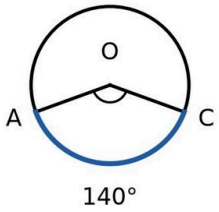
B 132°

C 146°

D 234°

Understand It with Pulse | Flag a mistake

15 **An angle at the centre of a circle stands on an arc of 140°. The angle at the circumference standing on the same arc is**



A 140°

B 70°

C 80°

D 280°

Understand It with Pulse | Flag a mistake

16 **A shape with area 12 cm² is enlarged by scale factor 3. The area of the enlarged shape is**

- A 108 cm²
- B 15 cm²
- C 324 cm²
- D 36 cm²

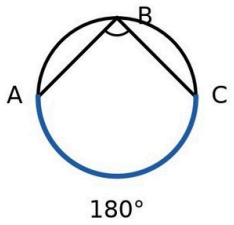
Understand It with Pulse | Flag a mistake

17 **The sum of the interior angles of a polygon with 10 sides is**

- A 1440°
- B 1620°
- C 1800°
- D 1260°

Understand It with Pulse | Flag a mistake

18 **An angle in a semicircle is always**



- **A** 90°
- **B** 180°
- **C** 60°
- **D** 45°

Understand It with Pulse | Flag a mistake

19 **Two parallel lines are cut by a transversal. One angle is 61°. Its alternate angle is**

- **A** 299°
- **B** 61°
- **C** 119°
- **D** 101°

Understand It with Pulse | Flag a mistake

20 **The interior angle of a triangle is 99°. The exterior angle at the same vertex is**

A 101°

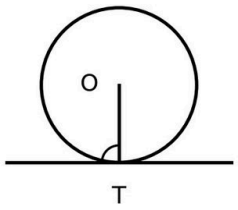
B 99°

C 261°

D 81°

Understand It with Pulse | Flag a mistake

21 **A radius drawn to a point where a tangent touches a circle makes an angle with the tangent of**



A 90°

B 60°

C 180°

D 45°

Understand It with Pulse | Flag a mistake

22 **Two straight lines cross. One of the angles formed is 99°. The angle vertically opposite it is**

A 99°

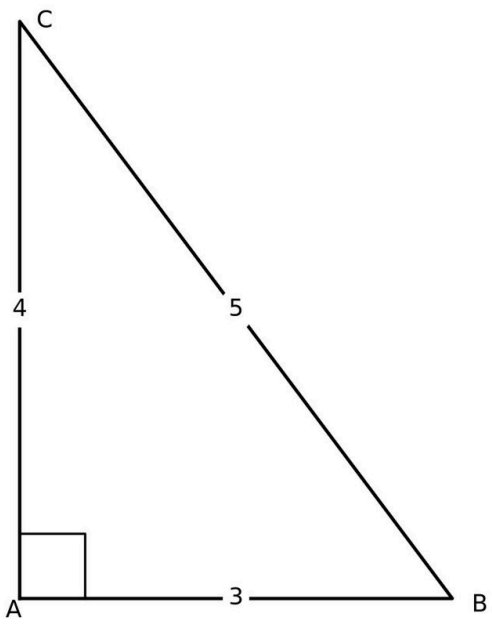
B 81°

C 261°

D 90°

Understand It with Pulse | Flag a mistake

23 **The diagram shows a right-angled triangle with sides 3 cm, 4 cm and 5 cm. A similar triangle has a shortest side of 9 cm. Its longest side is**



A 5 cm

B 8 cm

C 15 cm

D 20 cm

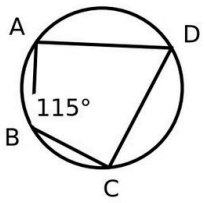
Understand It with Pulse | Flag a mistake

24 **Two angles sit on a straight line. One angle is 70°. The other angle is**

- **A** 290°
- **B** 110°
- **C** 120°
- **D** 70°

Understand It with Pulse | Flag a mistake

25 **In a quadrilateral in a circle, one angle is 115°. The opposite angle is**



- **A** 245°
- **B** 115°
- **C** 75°
- **D** 65°

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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