ENGLAND GCSE MATHS OCR FOUNDATION · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 **Amara buys hardcover books for £12. She pays with £17. How much change does she get?**

- A £4
- B £5
- C £10
- D £6

Understand It with Pulse | Flag a mistake

2 **An ice cream cone costs £1.60. The price increases by 50%. What is the new price?**

- A £2.10
- B £2.90
- C £0.80
- D £2.40

Understand It with Pulse | Flag a mistake

3 **The height of a rocket, in metres, after t seconds is $h = 15t - 5t^2$. When t = 2, the height is**

- **A** 5
- **B** 10
- **C** 30
- **D** 15

Understand It with Pulse | Flag a mistake

4 **A bicycle path falls 3 m for every 5 m it goes across. The gradient of the path is**

- **A** -3/5
- **B** -5/3
- **C** $\frac{3}{5}$
- **D** -4/5

Understand It with Pulse | Flag a mistake

5 **Two hardcover books and one calculator cost £10. One hardcover book and two calculators cost £8. The cost of one calculator is**

- A £2
- B £3
- C £4
- D £1

Understand It with Pulse | Flag a mistake

6 **Hardcover books are arranged in piles of 5, 10, 15, 20. The next pile has**

- A 25
- B 30
- C 20
- D 15

Understand It with Pulse | Flag a mistake

7 **Glass marbles are shared between two children in the ratio 3 : 4. There are 42 marbles altogether. The smaller share is**

- A 24
- B 19
- C 18
- D 42

Understand It with Pulse | Flag a mistake

8 **A yellow school bus travels 120 km in 2.5 hours. Its average speed, in km/h, is**

- A 300
- B 24
- C 48
- D 58

Understand It with Pulse | Flag a mistake

9 **A ladder leans against a wall, making an angle of 80 degrees with the ground. The angle between the ladder and the wall is**

- A 80
- B 100
- C 10
- D 20

Understand It with Pulse | Flag a mistake

10 **A chocolate cake is a cylinder with radius 10 cm and height 6 cm. Its volume, to one decimal place, is about**

- A 314.2 cm^3
- B 3769.9 cm^3
- C 1885 cm^3
- D 188.5 cm^3

Understand It with Pulse | Flag a mistake

11 **A passenger aeroplane takes off at an angle of 30° and flies 200 m. Its height is**

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

Understand It with Pulse | Flag a mistake

12 **Two dice are rolled. The probability of a total of 9 is**

- **A** $\frac{1}{6}$
- **B** $\frac{1}{12}$
- **C** $\frac{5}{36}$
- **D** $\frac{1}{9}$

Understand It with Pulse | Flag a mistake

13 **The range of 3, 4, 10, 16, 18 is**

A 16

B 18

C 15

D 14

Understand It with Pulse | Flag a mistake

14 **Each box holds 7 glass marbles. How many glass marbles are in 6 boxes?**

A 13

B 42

C 49

D 35

Understand It with Pulse | Flag a mistake

15 **Find $\frac{5}{8}$ of 64**

A 24

B 48

C 8

D 40

Understand It with Pulse | Flag a mistake

16 **If x = 4, the value of $3x^2 - 1$ is**

A 49

B 71

C 11

D 47

Understand It with Pulse | Flag a mistake

17 **A line is perpendicular to y = 1/4x + 0. The gradient of the perpendicular line is**

- A $\frac{1}{4}$
- B 4
- C -1/4
- D -4

Understand It with Pulse | Flag a mistake

18 **The formula v = u + at gives v = 24 when u = 4, a = 4 and t = 5. Rearrange the formula to make t the subject.**

- A t = (v - u) × a
- B t = v + u/a
- C t = v - u/a
- D t = v - u - a

Understand It with Pulse | Flag a mistake

19 The 25th term of the sequence with nth term 7n + 6 is

- A 181
- B 174
- C 188
- D 169

Understand It with Pulse | Flag a mistake

20 Write the ratio 45 : 15 in its simplest form

- A 1 : 3
- B 3 : 1
- C 9 : 3
- D 45 : 15

Understand It with Pulse | Flag a mistake

21 **Convert 90 km/h into $\frac{m}{s}$**

A 50

B 30

C 324

D 25

Understand It with Pulse | Flag a mistake

22 **Three angles meet at a point. Two of them are 133° and 59°. The third angle is**

A 192°

B 188°

C 168°

D 47°

Understand It with Pulse | Flag a mistake

23 **A trapezium has parallel sides of 8 cm and 10 cm, and the distance between them is 6 cm. Its area is**

- **A** 108 cm²
- **B** 54 cm²
- **C** 60 cm²
- **D** 80 cm²

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

25 **Two dice are rolled. The probability of a total of 8 is**

- **A** $\frac{1}{6}$
- **B** $\frac{1}{9}$
- **C** $\frac{5}{36}$
- **D** $\frac{7}{36}$

Understand It with Pulse | Flag a mistake

26 **The mode of 5, 2, 8, 8, 4 is**

- **A** 2
- **B** 5
- **C** 4
- **D** 8

Understand It with Pulse | Flag a mistake

27 **Amara buys hardcover books for £12. She pays with £14. How much change does she get?**

A £3

B £1

C £7

D £2

Understand It with Pulse | Flag a mistake

28 **A cheese pizza is cut into 8 equal slices. 2 slices are eaten. What fraction of the cheese pizza is left?**

A $\frac{1}{4}$

B $\frac{1}{8}$

C $\frac{7}{8}$

D $\frac{3}{4}$

Understand It with Pulse | Flag a mistake

29 **The height of a rocket, in metres, after t seconds is $h = 25t - 5t^2$. When t = 3, the height is**

- A 30
- B 35
- C 75
- D 25

Understand It with Pulse | Flag a mistake

30 **A bicycle path falls 2 m for every 5 m it goes across. The gradient of the path is**

- A -5/2
- B -2/5
- C -3/5
- D $\frac{2}{5}$

Understand It with Pulse | Flag a mistake

31 **A guitar costs x pounds. Two guitars and a £15 case cost £125. The value of x is**

- A £50
- B £60
- C £110
- D £55

Understand It with Pulse | Flag a mistake

32 **A thermometer records the temperature falling by 3 degrees each hour: 20, 17, 14, 11. The next temperature is**

- A 8
- B 11
- C 5
- D 14

Understand It with Pulse | Flag a mistake

33 **The ratio of burgers to chicken nuggets on a school lunch tray is 3 : 4. There are 12 burgers. How many chicken nuggets are there?**

- A 17
- B 28
- C 12
- D 16

Understand It with Pulse | Flag a mistake

34 **A rocket travels 1200 km in 3 hours. Its average speed is**

- A 400
- B 800
- C 300
- D 500

Understand It with Pulse | Flag a mistake

35 **A castle is 15 m tall. Its model is 30 cm tall. The scale factor from the model to the real castle is**

- A 100
- B 40
- C 50
- D 60

Understand It with Pulse | Flag a mistake

36 **A chocolate cake is a cylinder with radius 8 cm and height 10 cm. Its volume, to one decimal place, is about**

- A 4021.2 cm^3
- B 251.3 cm^3
- C 201.1 cm^3
- D 2010.6 cm^3

Understand It with Pulse | Flag a mistake

37 A brown dog walks 9 m east and then 12 m north. How far is it from its starting point?

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

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38 A box contains 24 eggs. 4 eggs are cracked. The probability of picking a cracked egg is

- **A** $\frac{5}{24}$
- **B** $\frac{5}{6}$
- **C** $\frac{1}{6}$
- **D** $\frac{1}{7}$

Understand It with Pulse | Flag a mistake

39 **The heights of 6 horses, in hands, are 19, 15, 16, 16, 14, 16. The mode is**

A 16

B 14

C 19

D 15

Understand It with Pulse | Flag a mistake

40 **The lowest common multiple of 12 and 28 is**

A 80

B 84

C 28

D 88

Understand It with Pulse | Flag a mistake

41 **9.6 ÷ 0.4 is equal to**

A 240

B 24

C 2.4

D 25

Understand It with Pulse | Flag a mistake

42 **Factorise $x^2 + 9x + 18$**

A $(x + 6)(x + 3)$

B $(x + 6)(x - 3)$

C $(x - 6)(x + 3)$

D $(x - 6)(x - 3)$

Understand It with Pulse | Flag a mistake

43 **A wooden footbridge rises 2 m over a run of 8 m. Its gradient is**

- **A** 4
- **B** $\frac{1}{4}$
- **C** $\frac{1}{5}$
- **D** $\frac{1}{2}$

Understand It with Pulse | Flag a mistake

44 **Solve 6x + 6 = 4x + 18**

- **A** x = 7
- **B** x = 3
- **C** x = 6
- **D** x = 5

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45 **The nth term of the sequence 9, 14, 19, 24 is**

A 5n - 4

B 5n + 4

C 4n + 5

D 6n + 4

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46 **Find 55% of 600**

A 330

B 165

C 270

D 360

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47 **A force of 480 N acts on an area of 12 m². The pressure, in $\frac{N}{m^2}$, is**

A 240

B 45

C 5760

D 40

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48 **Two parallel lines are cut by a transversal. One angle is 121°. Its corresponding angle is**

A 90°

B 121°

C 59°

D 141°

Understand It with Pulse | Flag a mistake

49 **A roundabout has a radius of 7 m. Its area, to one decimal place, is about**

- **A** 44 m²
- **B** 307.9 m²
- **C** 153.9 m²
- **D** 22 m²

Understand It with Pulse | Flag a mistake

50 **A kite string is 10 m long and makes an angle of 30° with the ground. The height of the kite is**

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

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ANSWER KEY

1.	B	**18.**	C	**35.**	C
2.	D	**19.**	A	**36.**	D
3.	B	**20.**	B	**37.**	B
4.	A	**21.**	D	**38.**	C
5.	A	**22.**	C	**39.**	A
6.	A	**23.**	B	**40.**	B
7.	C	**24.**	C	**41.**	B
8.	C	**25.**	C	**42.**	A
9.	C	**26.**	D	**43.**	B
10.	C	**27.**	D	**44.**	C
11.	A	**28.**	D	**45.**	B
12.	D	**29.**	A	**46.**	A
13.	C	**30.**	B	**47.**	D
14.	B	**31.**	D	**48.**	B
15.	D	**32.**	A	**49.**	C
16.	D	**33.**	D	**50.**	A
17.	D	**34.**	A		

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