ENGLAND GCSE MATHS EDEXCEL HIGHER · 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 The value of $\sqrt{49}$ is

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

Understand It with Pulse | Flag a mistake

2 **A sandwich is cut into 8 equal triangles. 5 triangles are eaten. What fraction of the sandwich is left?**

- **A** $\frac{3}{8}$
- **B** $\frac{1}{2}$
- **C** $\frac{5}{8}$
- **D** $\frac{3}{10}$

Understand It with Pulse | Flag a mistake

3 **A sandwich costs s pounds. The cost, in pounds, of 5 sandwiches and a £2 drink is**

- **A** 6s + 2
- **B** 5s + 2
- **C** 5s - 2
- **D** 5(s + 2)

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

5 **A cup of coffee costs x pounds. 3 cups of coffee cost £15. The value of x is**

- **A** £4
- **B** £6
- **C** £5
- **D** £15

Understand It with Pulse | Flag a mistake

6 **A thermometer records the temperature falling by 3 degrees each hour: 26, 23, 20, 17. The next temperature is**

- A 14
- B 20
- C 17
- D 11

Understand It with Pulse | Flag a mistake

7 **A pack of 6 red apples costs £4 and a pack of 12 red apples costs £7. Which pack is better value?**

- A They are the same value
- B The pack of 6
- C Neither pack
- D The pack of 12

Understand It with Pulse | Flag a mistake

8 **A red race car worth £20000 loses 15% of its value each year. How much is it worth after one year?**

- A £18000
- B £19700
- C £17000
- D £3000

Understand It with Pulse | Flag a mistake

9 **A ladder leans against a wall, making an angle of 70 degrees with the ground. The angle between the ladder and the wall is**

- A 110
- B 70
- C 20
- D 30

Understand It with Pulse | Flag a mistake

10 **A cup of coffee fills a cylindrical cup with radius 3 cm and height 10 cm. The volume of the coffee is, to one decimal place, about**

- **A** 565.5 cm^3
- **B** 282.7 cm^3
- **C** 28.3 cm^3
- **D** 94.2 cm^3

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

12 **A coin is tossed 50 times. It lands on heads 23 times. The relative frequency of heads is**

A 0.51

B 0.54

C 0.41

D 0.46

Understand It with Pulse | Flag a mistake

13 **A scatter graph shows the height and weight of students. The line of best fit is used to**

A predict a weight from a height

B find the range of the weights of the students

C find the mean height

D count the students

Understand It with Pulse | Flag a mistake

14 **Aisha has 4 tops, 3 skirts and 4 pairs of shoes. How many different outfits can she make?**

- A 48
- B 16
- C 11
- D 12

Understand It with Pulse | Flag a mistake

15 **Calculate $\frac{5}{5}$ of 60**

- A 60
- B 12
- C 72
- D 0

Understand It with Pulse | Flag a mistake

16 **Write an expression for 6 less than 3 times a number x**

A 6 - 3x

B 3x + 6

C 6x - 3

D 3x - 6

Understand It with Pulse | Flag a mistake

17 **The gradient of the curve $y = x^2$ at the point where $x = 3$ is**

A 9

B 6

C 4

D 8

Understand It with Pulse | Flag a mistake

18 **Solve the simultaneous equations x + y = 7, x - y = -1**

A x = 4, y = 4

B x = 3, y = 5

C x = 4, y = 3

D x = 3, y = 4

Understand It with Pulse | Flag a mistake

19 **The nth term of the sequence 4, 10, 18, 28 is**

A $2n^2 + 3n$

B $n^2 + 4n$

C $n^2 + 3n$

D $n^2 - 3n$

Understand It with Pulse | Flag a mistake

20 **The exchange rate is £1 = 1.15 euros. How many euros do you get for £300?**

- A 335
- B 355
- C 345
- D 260.87

Understand It with Pulse | Flag a mistake

21 **y is inversely proportional to x and y = 9 when x = 4. Find y when x = 12.**

- A 3
- B 27
- C 432
- D 12

Understand It with Pulse | Flag a mistake

22 **A shape with area 8 cm² is enlarged by scale factor 4. The area of the enlarged shape is**

- A 512 cm²
- B 12 cm²
- C 128 cm²
- D 32 cm²

Understand It with Pulse | Flag a mistake

23 **A cuboid is 5 cm by 5 cm by 2 cm. Its total surface area is**

- A 45 cm²
- B 90 cm²
- C 92 cm²
- D 50 cm²

Understand It with Pulse | Flag a mistake

24 **A triangle has sides 4 cm and 12 cm with an included angle of 30°. Its area is**

- **A** 12 cm²
- **B** 48 cm²
- **C** 24 cm²
- **D** 17 cm²

Understand It with Pulse | Flag a mistake

25 **A bag contains 3 red and 3 blue marbles. One red marble is removed. The probability the next marble is red is**

- **A** $\frac{1}{2}$
- **B** $\frac{2}{5}$
- **C** $\frac{3}{5}$
- **D** $\frac{1}{3}$

Understand It with Pulse | Flag a mistake

26 **A class interval 10-15 has frequency 6. Its frequency density is**

- A 0.6
- B 6
- C 1.2
- D 30

Understand It with Pulse | Flag a mistake

27 **Zara buys a guitar for £78. She pays with £88. How much change does she get?**

- A £15
- B £9
- C £11
- D £10

Understand It with Pulse | Flag a mistake

28 **There are 100 silver coins. 10% of them are old. How many old silver coins are there?**

- A 5
- B 20
- C 95
- D 10

Understand It with Pulse | Flag a mistake

29 **A sandwich costs s pounds. The cost, in pounds, of 5 sandwiches and a £4 drink is**

- A 6s + 4
- B 5s + 4
- C 5s - 4
- D 5(s + 4)

Understand It with Pulse | Flag a mistake

30 **A ladder leans against a wall. It rises 3 m for every 5 m it goes across. The gradient of the ladder is**

- **A** $\frac{1}{2}$
- **B** $\frac{3}{5}$
- **C** $\frac{5}{3}$
- **D** $\frac{4}{5}$

Understand It with Pulse | Flag a mistake

31 **A bicycle costs x pounds. After a £20 discount it costs £150. The value of x is**

- **A** £150
- **B** £170
- **C** £130
- **D** £180

Understand It with Pulse | Flag a mistake

32 **A sunflower is 10 cm tall. It grows 4 cm each week. Its height after 6 weeks is**

- A 30
- B 26
- C 34
- D 38

Understand It with Pulse | Flag a mistake

33 **There are 100 silver coins. 20% of them are old. How many old silver coins are there?**

- A 20
- B 85
- C 10
- D 30

Understand It with Pulse | Flag a mistake

34 **A rocket travels 1200 km in 2 hours. Its average speed is**

- A 700
- B 600
- C 500
- D 1200

Understand It with Pulse | Flag a mistake

35 **A set square is a right-angled triangle with angles 90 degrees, 30 degrees and one more. The third angle is**

- A 70
- B 60
- C 120
- D 30

Understand It with Pulse | Flag a mistake

36 **A Ferris wheel has a diameter of 10 m. Its circumference, to one decimal place, is about**

- A 15.7 m
- B 37.7 m
- C 31.4 m
- D 62.8 m

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

38 **The probability of rain on Saturday is 0.4. If it rains, the probability a passenger train is late is 0.7. If it does not rain, the probability the train is late is 0.3. The probability the train is late is**

A 0.56

B 0.28

C 0.46

D 0.18

Understand It with Pulse | Flag a mistake

39 **The heights of 6 horses, in hands, are 18, 14, 15, 15, 15, 19. The mode is**

A 19

B 18

C 14

D 15

Understand It with Pulse | Flag a mistake

40 **Each bag holds 6 red apples. How many red apples are in 5 bags?**

A 30

B 11

C 24

D 36

Understand It with Pulse | Flag a mistake

41 **1250 g is kg**

A 12.5

B 2.25

C 1.25

D 1250

Understand It with Pulse | Flag a mistake

42 **Write in its simplest form $x^2 - 16/x + 4$**

A x - 4

B x + 4

C x - 5

D $x^2 - 4$

Understand It with Pulse | Flag a mistake

43 **The turning point of $y = (x - 4)^2 + 2$ is**

A (-4, 2)

B (4, 2)

C (4, -2)

D (3, 1)

Understand It with Pulse | Flag a mistake

44 **Two hardcover books and one calculator cost £13. One hardcover book and two calculators cost £14. The cost of one calculator is**

A £6

B £7

C £5

D £4

Understand It with Pulse | Flag a mistake

45 **Eggs are packed in trays of 6, 12, 18, 24. The next tray holds**

A 36

B 18

C 30

D 24

Understand It with Pulse | Flag a mistake

46 **A pack of 4 red apples costs £3 and a pack of 8 red apples costs £5. Which pack is better value?**

A Neither pack

B The pack of 8

C They are the same value

D The pack of 4

Understand It with Pulse | Flag a mistake

47 **y is inversely proportional to x^2 and y = 36 when x = 1. Find y when x = 6.**

A 37

B 216

C 6

D 1

Understand It with Pulse | Flag a mistake

48 **Three angles meet at a point. Two of them are 62° and 63°. The third angle is**

- A 255°
- B 118°
- C 125°
- D 235°

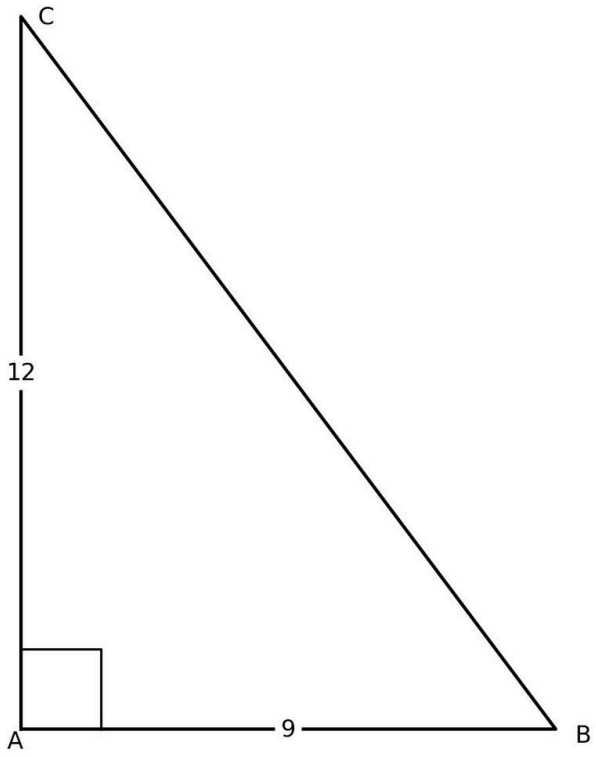
Understand It with Pulse | Flag a mistake

49 **A sphere has radius 5 cm. Its volume, to one decimal place, is about**

- A 104.7 cm^3
- B 392.7 cm^3
- C 314.2 cm^3
- D 523.6 cm^3

Understand It with Pulse | Flag a mistake

50 **A right-angled triangle has one side of length 9 cm and the other side of length 12 cm. The hypotenuse is**



A 16 cm

B 21 cm

C 14 cm

D 15 cm

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ANSWER KEY

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

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