ENGLAND GCSE MATHS AQA FOUNDATION · UNIT 8 · 25 QUESTIONS

Proportion, Rates of Change, Growth and Decay — 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 so it can be fixed.

1 **A passenger aeroplane 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

2 **Water flows into a swimming pool at 30 litres per minute. How long does it take to fill 900 litres?**

- A 30
- B 60
- C 20
- D 40

Understand It with Pulse | Flag a mistake

3 **A rocket travels 2000 km in 4 hours. Its average speed is**

- A 600
- B 1000
- C 500
- D 400

Understand It with Pulse | Flag a mistake

4 **A bicycle travels 60 km in 5 hours. Its average speed is**

- A 7
- B 12
- C 24
- D 17

Understand It with Pulse | Flag a mistake

5 **A red race car worth £8000 loses 15% of its value each year. How much is it worth after one year?**

- A £1200
- B £7800
- C £7880
- D £6800

Understand It with Pulse | Flag a mistake

6 **A yellow school bus travels 240 km in 1.5 hours. Its average speed, in km/h, is**

- A 360
- B 80
- C 160
- D 170

Understand It with Pulse | Flag a mistake

7 **y is directly proportional to x and y = 6 when x = 2. Find y when x = 3.**

- A 18
- B 12
- C 6
- D 9

Understand It with Pulse | Flag a mistake

8 **Convert 72 km/h into $\frac{m}{s}$**

A 40

B 259.2

C 20

D 25

Understand It with Pulse | Flag a mistake

9 **A block has mass 480 g and volume 60 cm³. Its density, in g/cm³, is**

A 8

B 28800

C 10

D 240

Understand It with Pulse | Flag a mistake

10 **Money of £2000 is invested at 4% compound interest per year. How much is it worth after 2 years?**

- A £2160
- B £2080
- C £2163.20
- D £2213.20

Understand It with Pulse | Flag a mistake

11 **A population of 500 grows by 2% each year. After 3 years the population is about**

- A 531
- B 530
- C 581
- D 1000

Understand It with Pulse | Flag a mistake

12 **y is inversely proportional to x and y = 6 when x = 6. Find y when x = 12.**

- A 9
- B 3
- C 432
- D 12

Understand It with Pulse | Flag a mistake

13 **A force of 360 N acts on an area of 12 m². The pressure, in $\frac{N}{m^2}$, is**

- A 180
- B 30
- C 35
- D 4320

Understand It with Pulse | Flag a mistake

14 **y is directly proportional to x and y = 16 when x = 2. Find y when x = 3.**

A 32

B 11

C 24

D 48

Understand It with Pulse | Flag a mistake

15 **Convert 108 km/h into $\frac{m}{s}$**

A 388.8

B 35

C 30

D 60

Understand It with Pulse | Flag a mistake

16 **A block has mass 600 g and volume 60 cm³. Its density, in g/cm³, is**

A 10

B 12

C 300

D 36000

Understand It with Pulse | Flag a mistake

17 **Money of £5000 is invested at 5% compound interest per year. How much is it worth after 2 years?**

A £5562.50

B £5500

C £5250

D £5512.50

Understand It with Pulse | Flag a mistake

18 **y is inversely proportional to x and y = 8 when x = 3. Find y when x = 2.**

- A 5
- B 20
- C 48
- D 12

Understand It with Pulse | Flag a mistake

19 **A force of 200 N acts on an area of 6 m². The pressure, in $\frac{N}{m^2}$, is**

- A 1200
- B 33
- C 38
- D 100

Understand It with Pulse | Flag a mistake

20 **y is directly proportional to x and y = 8 when x = 2. Find y when x = 5.**

- A 9
- B 40
- C 24
- D 20

Understand It with Pulse | Flag a mistake

21 **Money of £5000 is invested at 2% compound interest per year. How much is it worth after 2 years?**

- A £5200
- B £5100
- C £5202
- D £5252

Understand It with Pulse | Flag a mistake

22 **y is inversely proportional to x and y = 12 when x = 2. Find y when x = 4.**

- A 6
- B 18
- C 24
- D 96

Understand It with Pulse | Flag a mistake

23 **A force of 120 N acts on an area of 6 m². The pressure, in $\frac{N}{m^2}$, is**

- A 720
- B 20
- C 60
- D 25

Understand It with Pulse | Flag a mistake

24 **y is directly proportional to x and y = 14 when x = 2. Find y when x = 9.**

A 126

B 16

C 70

D 63

Understand It with Pulse | Flag a mistake

25 **Convert 36 km/h into $\frac{m}{s}$**

A 20

B 15

C 10

D 129.6

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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