ENGLAND GCSE MATHS EDEXCEL 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 **Water flows into a swimming pool at 20 litres per minute. How long does it take to fill 800 litres?**

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

Understand It with Pulse | Flag a mistake

2 **A passenger aeroplane travels 1600 km in 2 hours. Its average speed is**

- A 900
- B 800
- C 1600
- D 700

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

4 **A rocket travels 1800 km in 3 hours. Its average speed is**

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

Understand It with Pulse | Flag a mistake

5 **A bicycle travels 48 km in 4 hours. Its average speed is**

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

Understand It with Pulse | Flag a mistake

6 **A yellow school bus travels 210 km in 2 hours. Its average speed, in km/h, is**

- A 105
- B 52.5
- C 420
- D 115

Understand It with Pulse | Flag a mistake

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

- A 545
- B 596
- C 546
- D 1000

Understand It with Pulse | Flag a mistake

8 **A passenger train travels 180 km in 1.5 hours. Its average speed, in km/h, is**

- A 270
- B 130
- C 120
- D 60

Understand It with Pulse | Flag a mistake

9 **y is inversely proportional to x and y = 10 when x = 6. Find y when x = 2.**

- A 120
- B 40
- C 3
- D 30

Understand It with Pulse | Flag a mistake

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

- **A** 40
- **B** 45
- **C** 240
- **D** 5760

Understand It with Pulse | Flag a mistake

11 A block has mass 600 g and volume 120 cm³. Its density, in g/cm³, is

- **A** 72000
- **B** 7
- **C** 300
- **D** 5

Understand It with Pulse | Flag a mistake

12 **Money of £5000 is invested at 4% compound interest per year. How much is it worth after 2 years?**

A £5400

B £5458

C £5200

D £5408

Understand It with Pulse | Flag a mistake

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

A 259.2

B 20

C 40

D 25

Understand It with Pulse | Flag a mistake

14 **y is directly proportional to x and y = 12 when x = 2. Find y when x = 6.**

A 42

B 72

C 12

D 36

Understand It with Pulse | Flag a mistake

15 **A population of 200 grows by 3% each year. After 3 years the population is about**

A 219

B 400

C 218

D 239

Understand It with Pulse | Flag a mistake

16 **y is inversely proportional to x and y = 24 when x = 2. Find y when x = 8.**

A 96

B 30

C 384

D 6

Understand It with Pulse | Flag a mistake

17 **A block has mass 360 g and volume 40 cm³. Its density, in g/cm³, is**

A 14400

B 180

C 11

D 9

Understand It with Pulse | Flag a mistake

18 **Money of £2000 is invested at 5% compound interest per year. How much is it worth after 2 years?**

A £2205

B £2100

C £2200

D £2255

Understand It with Pulse | Flag a mistake

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

A 129.6

B 15

C 20

D 10

Understand It with Pulse | Flag a mistake

20 **y is directly proportional to x and y = 4 when x = 2. Find y when x = 6.**

- A 12
- B 8
- C 14
- D 24

Understand It with Pulse | Flag a mistake

21 **y is inversely proportional to x and y = 6 when x = 4. Find y when x = 2.**

- A 18
- B 3
- C 12
- D 48

Understand It with Pulse | Flag a mistake

22 A force of 360 N acts on an area of 6 m^2. The pressure, in $\frac{N}{m^2}$, is

- **A** 60
- **B** 2160
- **C** 180
- **D** 65

Understand It with Pulse | Flag a mistake

23 A block has mass 480 g and volume 60 cm^3. Its density, in g/cm^3, is

- **A** 240
- **B** 28800
- **C** 10
- **D** 8

Understand It with Pulse | Flag a mistake

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

A £2080

B £2163.20

C £2160

D £2213.20

Understand It with Pulse | Flag a mistake

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

A 60

B 35

C 388.8

D 30

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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