ENGLAND GCSE MATHS OCR 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 rocket travels 4800 km in 4 hours. Its average speed is**

- A 1200
- B 2400
- C 1300
- D 1100

Understand It with Pulse | Flag a mistake

2 **A bicycle travels 30 km in 2 hours. Its average speed is**

- A 15
- B 30
- C 10
- D 20

Understand It with Pulse | Flag a mistake

3 **A red race car travels 150 km in 3 hours. Its average speed, in km/h, is**

- A 450
- B 60
- C 50
- D 25

Understand It with Pulse | Flag a mistake

4 **A passenger aeroplane travels 900 km in 3 hours. Its average speed is**

- A 400
- B 300
- C 600
- D 200

Understand It with Pulse | Flag a mistake

5 **Water flows into a swimming pool at 25 litres per minute. How long does it take to fill 1000 litres?**

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

Understand It with Pulse | Flag a mistake

6 **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

7 **A force of 120 N acts on an area of 8 m². The pressure, in $\frac{\text{N}}{\text{m}^2}$, is**

- A 15
- B 960
- C 60
- D 20

Understand It with Pulse | Flag a mistake

8 **y is directly proportional to x and y = 16 when x = 2. Find y when x = 7.**

A 112

B 56

C 64

D 15

Understand It with Pulse | Flag a mistake

9 **A block has mass 240 g and volume 60 cm³. Its density, in g/cm³, is**

A 6

B 4

C 14400

D 120

Understand It with Pulse | Flag a mistake

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

A 15

B 10

C 20

D 129.6

Understand It with Pulse | Flag a mistake

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

A £5252

B £5200

C £5202

D £5100

Understand It with Pulse | Flag a mistake

12 **y is inversely proportional to x and y = 30 when x = 2. Find y when x = 12.**

- A 5
- B 180
- C 35
- D 720

Understand It with Pulse | Flag a mistake

13 **A force of 200 N acts on an area of 4 m². The pressure, in $\frac{N}{m^2}$, is**

- A 55
- B 50
- C 800
- D 100

Understand It with Pulse | Flag a mistake

14 **y is directly proportional to x and y = 12 when x = 2. Find y when x = 4.**

A 24

B 10

C 30

D 48

Understand It with Pulse | Flag a mistake

15 **A block has mass 480 g and volume 80 cm³. Its density, in g/cm³, is**

A 6

B 8

C 240

D 38400

Understand It with Pulse | Flag a mistake

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

A 50

B 30

C 324

D 25

Understand It with Pulse | Flag a mistake

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

A £5200

B £5400

C £5408

D £5458

Understand It with Pulse | Flag a mistake

18 **y is inversely proportional to x and y = 12 when x = 3. Find y when x = 2.**

- A 8
- B 30
- C 72
- D 18

Understand It with Pulse | Flag a mistake

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

- A 70
- B 63
- C 16
- D 126

Understand It with Pulse | Flag a mistake

20 **A block has mass 240 g and volume 40 cm³. Its density, in g/cm³, is**

- **A** 8
- **B** 6
- **C** 120
- **D** 9600

Understand It with Pulse | Flag a mistake

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

- **A** 40
- **B** 259.2
- **C** 25
- **D** 20

Understand It with Pulse | Flag a mistake

22 **Money of £1000 is invested at 5% compound interest per year. How much is it worth after 2 years?**

A £1102.50

B £1050

C £1100

D £1152.50

Understand It with Pulse | Flag a mistake

23 **y is inversely proportional to x and y = 20 when x = 3. Find y when x = 4.**

A 35

B 240

C 15

D 26

Understand It with Pulse | Flag a mistake

24 A force of 120 N acts on an area of 12 m². The pressure, in $\frac{N}{m^2}$, is

- **A** 60
- **B** 1440
- **C** 15
- **D** 10

Understand It with Pulse | Flag a mistake

25 y is directly proportional to x and y = 4 when x = 2. Find y when x = 3.

- **A** 5
- **B** 6
- **C** 8
- **D** 12

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.