ENGLAND GCSE MATHS OCR HIGHER · UNIT 8 · 10 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 1500 km in 3 hours. Its average speed is**

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

Understand It with Pulse | Flag a mistake

2 **A passenger aeroplane travels 800 km in 2 hours. Its average speed is**

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

Understand It with Pulse | Flag a mistake

3 **y is directly proportional to x and y = 6 when x = 2. Find y when x = 8.**

- A 48
- B 27
- C 11
- D 24

Understand It with Pulse | Flag a mistake

4 **y is inversely proportional to x^2 and y = 18 when x = 1. Find y when x = 6.**

- A 3
- B 0
- C 108
- D 18

Understand It with Pulse | Flag a mistake

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

- A 6
- B 96
- C 2
- D 10

Understand It with Pulse | Flag a mistake

6 **On a distance-time graph, a car travels 120 km in 4 hours at a steady speed. The speed of the car, in km/h, is**

- A 60
- B 30
- C 480
- D 116

Understand It with Pulse | Flag a mistake

7 **Water flows into a swimming pool at 10 litres per minute. How long does it take to fill 300 litres?**

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

Understand It with Pulse | Flag a mistake

8 **A red race car worth £12000 loses 20% of its value each year. How much is it worth after one year?**

- A £9600
- B £11760
- C £10600
- D £2400

Understand It with Pulse | Flag a mistake

9 **A bicycle travels 36 km in 2 hours. Its average speed is**

- A 13
- B 36
- C 18
- D 23

Understand It with Pulse | Flag a mistake

10 **A force of 200 N acts on an area of 12 m². The pressure, in $\frac{N}{m^2}$, is**

A 2400

B 21

C 16

D 100

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	C	**5.**	A	**9.**	C
2.	A	**6.**	B	**10.**	C
3.	D	**7.**	B		
4.	B	**8.**	A		

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