

Quick Test - Proportionality

1. Two variables are connected by the relationship $y \propto x$. When $x = 0.2$, $y = 1.8$.

- Write a formula for y in terms of x
- Work out y when $x = 0.16$
- Work out x when $y = 29$

2. The cost of petrol for a journey is directly proportional to the distance travelled. Joe travels 130 miles and spends £15 on petrol. Calculate

- The cost of petrol for a journey of 190 miles
- The length of a journey costing £12.75

3. n is inversely proportional to m . When $n = 4$, $m = 6$

- Write a formula for n in terms of m
- Calculate m when $n = 12$
- Calculate n when $m = 0.4$

4. The shutter speed of a camera, S , is inversely proportional to the square of the aperture setting, f .

When $f = 11$, $S = 90$

Find the value of s when $f = 18$

5. L is inversely proportional to H . When $H = 7$, $L = 42$.

Find the value of H when $L = \frac{1}{2}$

6. Write the letter of the graph that represents each of these relationships

$$y \propto x$$

$$y \propto x^2$$

$$y \propto \frac{1}{x}$$

$$y \propto \sqrt{x}$$

