

**AQA, OCR, Edexcel**

**GCSE**

# **GCSE Maths**

## **Proportionality Answers**

Name:

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Total Marks:  /20

## Proportionality

1.  $y$  is inversely proportional to  $x$ . When  $x = 3, y = 24$ .

a. Find a formula for  $y$  in terms of  $x$ .  $y = \frac{72}{x}$

b. Hence or otherwise.

i. Calculate the value of  $y$  when  $x = 6$   $y = 12$

ii. Calculate the value of  $x$  when  $y = 4.8$   $y = 15$

(5 Marks)

2.  $y$  is directly proportional to  $x^2$ . When  $x = 2, y = 36$ .

a. Express  $y$  in terms of  $x$ .  $y = 9x^2$

b. Calculate the value of  $x$  when  $y = 49$   $x = \frac{7}{3}$

(5 Marks)

3.  $y$  is inversely proportional to  $x^2$ .  $y = 3$  when  $x = 4$ .

a. Express  $y$  in terms of  $x$ .  $y = \frac{48}{x^2}$

b. Calculate the value of  $y$  when  $x = 5$   $y = 1.92$

(5 Marks)

4.  $a$  is inversely proportional to  $b$ .  $a = 1.5$  when  $b = 2$

a. Express  $a$  in terms of  $b$   $a = \frac{3}{b}$

b. Calculate the value of  $a$  when  $b = 1$   $a = 3$

(5 Marks)