

# 1.10 Direct & Inverse Proportion

## Question Paper

Course	CIE IGCSE Maths
Section	1. Number
Topic	1.10 Direct & Inverse Proportion
Difficulty	Medium

**Time allowed:** 20

**Score:** /15

**Percentage:** /100

**Question 1**

$y$  is directly proportional to the square root of  $x$ .

When  $x = 9$ ,  $y = 6$ .

Find  $y$  when  $x = 25$ .

$y = \dots\dots\dots$  [3]

[3 marks]

**Question 2a**

A ball falls  $d$  metres in  $t$  seconds.

$d$  is directly proportional to the square of  $t$ .

The ball falls 44.1 m in 3 seconds.

Find a formula for  $d$  in terms of  $t$ .

$d = \dots\dots\dots$  [2]

[2 marks]

**Question 2b**

Calculate the distance the ball falls in 2 seconds.

$\dots\dots\dots$  m [1]

[1 mark]

**Question 3**

$y$  is inversely proportional to  $x$ .

When  $x = 9$ ,  $y = 8$ .

Find  $y$  when  $x = 6$ .

$y = \dots\dots\dots$  [3]

[3 marks]

**Question 4**

$y$  is inversely proportional to  $x^2$ .

When  $x = 4$ ,  $y = 7.5$ .

Find  $y$  when  $x = 5$ .

$y = \dots\dots\dots$  [3]

[3 marks]

**Question 5**

$y$  is inversely proportional to  $x^2$ .

When  $x = 4$ ,  $y = 2$ .

Find  $y$  when  $x = \frac{1}{2}$ .

$y = \dots\dots\dots$  [3]

**[3 marks]**