IGCSE – Direct and Inverse proportion Paper 2 -1

Oct 03 Paper 2

10 When cars go round a bend there is a force, F, between the tyres and the ground.
F varies directly as the square of the speed, v.
When $v = 40, F = 18$.
Find F when $v = 32$.

Answer F =... [3]

May 05 Paper 2

9 The wavelength, w, of a radio signal is inversely proportional to its frequency, f.
When $f = 200, w = 1500$.

(a) Find an equation connecting f and w.

Answer (a) .... [2]

(b) Find the value of f when $w = 600$.

Answer (b) f = ... [1]

Oct 05 Paper 2

13 The force of attraction (F) between two objects is inversely proportional to the square of the distance (d) between them.
When $d = 4, F = 30$.
Calculate F when $d = 8$.

Oct 04 Paper 2   *Answer F = ...* [3]

7 The air resistance (R) to a car is proportional to the square of its speed (v).
When $R = 1800, v = 30$.
Calculate R when $v = 40$.

Answer R = ... [3]