1 F is inversely proportional to the square of v.

Given that $F = 6.5$ when $v = 4$

find a formula for F in terms of v.

....

(Total for Question 1 is 3 marks)

2 P is inversely proportional to y^2

When $y = 4$, $P = a$

(a) Find a formula for P in terms of y and a

....
(3)

Given also that y is directly proportional to $\sqrt{x}$
and when $x = a$, $P = 4a$

(b) find a formula for P in terms of x and a

....
(3)

(Total for Question 2 is 6 marks)

3 y is inversely proportional to $\sqrt{x}$

$y = c^4$ when $x = c^2$ where c is a positive constant.

Find a formula for y in terms of x and c
Give your answer in its simplest form.

....

(Total for Question 3 is 3 marks)