

Solve for  $dy/dx$  and find the instantaneous slope at the given point for each question

1)  $x^2 + 4y = y^2$  at the point  $(3, -2)$

2)  $x^3 - 7y^2 + 2y = 7$  at the point  $(2, -1)$

3)  $x^2y + 5y = 4x^3$  at the point  $(-1, 1)$

4)  $3x + 2xy + 4y^2 = 10x^2$  at the point  $(4, 2)$

5)  $\frac{x^4}{x^2 - 1} = y^3$  at the point  $(2, -2)$