MCS21 Homework 30

Use implicit differentiation to find $\dfrac{dy}{dx}$ in terms of x and y.

1. $x^2 + y^2 = 100$

2. $3x^2 - 4y^3 = 7$

3. $x^3 + xy - 2x = 1$

4. $\left(5y^2 + 1\right)^2 = 3x^2$

5. $7y^4 + \cos y = x^3$

6. $y \sin x - x^4 = 5y$

7. $\tan(xy) = 8x$