

**Quiz-Implicit Differentiation****Name:**

Use implicit differentiation to find the derivative of each equation below. **Simplify answers (and no negative exponents).**

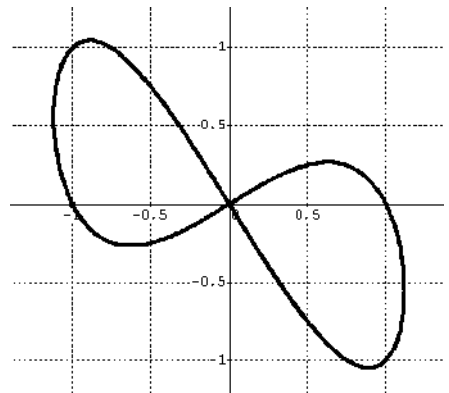
1)  $5x - 2x^3y = 5y + 1$

2)  $(2x + 1)^3 = \sqrt[3]{y + 1}$

$$3) \quad 4y^3 - y = \frac{x+1}{x-1}$$

$$4) \quad \text{Given the curve below: } x^4 + xy = x^2 - y^2$$

$$\text{and its derivative: } \frac{dy}{dx} = \frac{2x - 4x^3 - y}{x + 2y}$$



Find the equation of the tangent line to the curve at the point  $(-1,0)$ .