

Quiz-Implicit Differentiation 2011 version 1.doc Name: _____

Use implicit differentiation to find the derivative of each equation below. Simplify answers as much as possible, and no negative exponents.

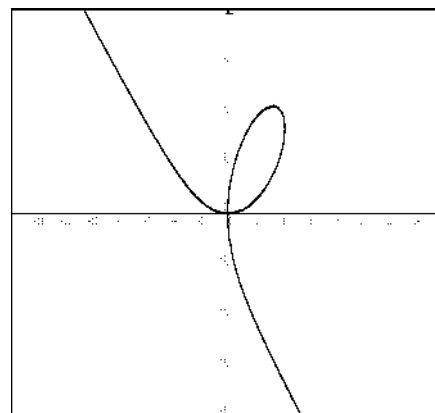
1) $y^5 + 4x^2y^2 + 5x^4 = 12$

2) $3y^2 = \frac{2x-1}{x^2+5}$

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

4) Find the equation of the tangent line to the function:

$x^3 - 8xy + y^3 = 0$ at point (4,4)



Extra Credit: Using only a few words, fill in the blanks below:

A derivative is _____

An integral is _____