

AP Calculus
Day 48 Warm Up

Name _____

Date _____

1. Consider the curve given by $x^2y - y^4x^2 = 10$.

a) Show that $\frac{dy}{dx} = \frac{2y^4 - 2y}{x - 4y^3x}$

b) Find all points whose x -coordinate is 5 and write an equation for the tangent line at each of these points.

c) Find the x -coordinate of each point on the curve where the tangent line is vertical.

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1.

Answer: $y = -0.239x - 0.365, x = \pm \frac{40}{3} \sqrt[3]{4}$

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