

Math 2143 - Brief Calculus with Applications

Quiz #9 - 2008.04.16

Name: _____

Answer the following questions assuming that y is a function of x , and satisfies the following implicitly defined equation:

$$x^2 + xy + y^2 = 4$$

1. Show that the point $\left(\frac{2}{\sqrt{3}}, -\frac{4}{\sqrt{3}}\right)$ satisfies the above relation.

2. Find $\frac{dy}{dx}$.

3. Evaluate $\frac{dy}{dx}$ at the point from problem 1.