

Name:
J#:
Date: 2017 June 23

Exercise Type:

Quiz

Standard: This student is able to... C06: ChainRule. Apply the multivariable Chain Rule to compute derivatives and find normal vectors.	Mark:
3/4	★ reattempt due on:

Let the equation $3x^2y = 4y^2 + 3x - 10$ define y as a differentiable function of x near the point $\langle 1, -1 \rangle$. Use partial derivatives to find $\frac{dy}{dx}$ at the point $\langle 1, -1 \rangle$.

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Standard: This student is able to...	Mark:
S06: Lineariz. Compute the linearization of a two-variable real-valued function at a point and use it for approximation.	
2/3	★ reattempt due on:

Find the linearization $L(x, y)$ for $f(x, y) = ye^{xy}$ at the point $\langle 0, 2 \rangle$. Then use it to show that $f(-0.01, 2.03) \approx 1.99$. (Hint: Don't forget to use the product rule to find f_y .)