"QUIZ" for Lecture 7

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E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q7FirstLast.pdf) ASAP BUT NO LATER THAN Sept. 28, 8:00pm

1. Compute the partial derivatives with respect to x and y.

$$z = \ln(x^2 + y^3) \quad .$$

$f_x,$

$$z' = \frac{1}{x^2 + y^3}(2x)$$

$$f_x = \frac{1}{x^2 + y^3}(3y^2)$$

2. Find an equation of the tangent plane to the given surface at the specified point.

$$z = x^2 + y^2 + 2 \quad , \quad (1, 1, 4) \quad .$$

$f_x,$

$$z' = 2x \qquad f_x(1,1) = 2$$

$$f_y = 2y \qquad f_y(1,1) = 2$$

$$z - 4 = 2(x - 1) + 2(y - 1)$$

$$z = 2x + 2y$$