

King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 132 Section # 1, 5 (092)
Quiz 1(a)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Find the equation of the tangent line to the curve $y = x^2 - 5x + 3$ at the point $(5, 2)$.

2. If $y = 5u^5 - u^3 + 7u - 21$ and $u = 2x - 3$, then find $\frac{dy}{dx}$ at $x = 1$.

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Quiz 1(b)

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Marks: _____/9

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1. For $f(x) = \frac{x+3}{x^2+7}$ show that $f'(x) = \frac{(x+7)(1-x)}{(x^2+7)^2}$.

2. If the average cost per unit is given by $\bar{c} = .01q + \frac{500}{q}$, where q is the total number of units produced, then find the marginal cost for 50 units.

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Quiz 1(c)

Time: 20 minutes

Marks: _____/9

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1. For $y = \sqrt{3x} + \frac{1}{\sqrt{3x}}$ find y' .

2. If the demand equation for a manufacturer's product is $p = \frac{1000}{q+5}$ where p is in dollars, then find marginal-revenue function and evaluate it at $q = 20$.