

MA 120-12 §3.1 – 3.4	Quiz #3	score	Name: _____ 6 June 2002
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INSTRUCTIONS: Circle the correct response.

1. Which of the following, if any, is an equation of the tangent line to the graph of $f(x) = x^3 - 5x^2 + 3x + 4$ when $x = 2$? (5 points)

- (a) $y = -5x + 3$
- (b) $y = -5x + 8$
- (c) $y = 5x + 3$
- (d) $y = 5x + 8$
- (e) None of the above.

2. Find the derivative of $f(x) = (2x^2 + x - 1)^{10}$. (5 points)

- (a) $f'(x) = 10(4x + 1)^9(4x + 1)$
- (b) $f'(x) = 10(2x^2 + x - 1)^{10}$
- (c) $f'(x) = 10(2x^2 + x - 1)^9$
- (d) $f'(x) = 10(2x^2 + x - 1)^9(4x + 1)$
- (e) None of the above.

3. Find the derivative of $f(x) = 2e^{3x+1}$. (5 points)

- (a) $f'(x) = 2e^{3x+1}$
- (b) $f'(x) = 6e^{3x+1}$
- (c) $f'(x) = 2e^{3x+1}(3x + 1)$
- (d) $f'(x) = 6e^3$
- (e) None of the above.

4. Let $f(x) = xe^x$. The value of $f'(1)$ is approximately (rounded to 1 decimal) (5 points)

- (a) 1.0
- (b) 5.4
- (c) 6.2
- (d) 4.2
- (e) None of the above.