

Name _____

Math 111 Section 4
Quiz 8 (over sections 5.4 & 5.5)

Find the first derivative of the first seven problems. (1 point each)

1. $f(x) = e^{3x}$

answer 1. _____

2. $f(x) = e^x + x^2$

answer 2. _____

3. $f(x) = (e^x + 1)^{25}$

answer 3. _____

4. $f(x) = 5 \ln x$

answer 4. _____

5. $f(x) = \ln \frac{1}{x^2}$

answer 5. _____

6. $f(x) = \ln(4x^2 - 5x + 3)$

answer 6. _____

Continue finding the first derivative of number 7

$$7. \ f(x) = x^2 (\ln x)$$

answer 7. _____

Find the second derivative of the final three problems.

$$8. \ f(x) = e^{-4x} + e^{3x}$$

answer 8. _____

$$9. \ f(t) = 3e^{-2t} - 5e^{-t}$$

answer 9. _____

$$10. \ f(x) = \ln(2x)$$

answer 10. _____