

Calc 2 Quiz *Practice*
Chapter 7

Name:

Date:

I. Find the derivative of each. Show all necessary work and circle final answers.

1. $y = \ln(4x^2 - 3)$

2. $y = \frac{\ln x}{x}$

3. $y = x^2 \ln x$

4. $y = \ln \frac{x^2 \sin x}{x+1}$

5. $y = e^{4x-x^2}$

6. $y = 2e^{\sin x}$

7. $y = 3^{x^2}$

8. $y = (x^2 + 3x)(x-2)^4(x^2+1)$

*Hint (Use Logarithmic Differentiation for #'s 7 and 8)

II. Evaluate each integral. Show necessary work!

9. $\int \frac{\cos x}{1 + \sin x} dx$

10. $\int \frac{2x}{x^2 - 25} dx$

11. $\int \frac{\ln x}{3x} dx$

12. $\int \frac{x+3}{x} dx$

13. $\int 2e^{2x-1} dx$

14. $\int \frac{1}{x} (\ln x)^3 dx$

III. Evaluate the following. You must do integration by hand. You may evaluate with calculator.

15. $\int_0^{-1} \frac{1}{2x+3} dx$

16. $\int_1^2 e^{1-x} dx$