

**MATH 232 - Calculus for Business  
Homework #5**

1) Find  $y'$  if  $y = \ln(2x^2 - 3)$ . 1) \_\_\_\_\_

2) Find  $y'$  if  $y = \log\sqrt{5x + 3}$ . 2) \_\_\_\_\_

3) Find  $y'$  if  $y = \ln[(x^2 + 5)^5(3 - 4x)^4]$ . 3) \_\_\_\_\_

4) Find  $y'$  if  $y = x^3 \ln(4x + 5)$ . 4) \_\_\_\_\_

5) Find  $y'$  if  $y = \frac{\ln x}{x}$ . 5) \_\_\_\_\_

6) If  $y = \frac{x^2 + 1}{x + \ln x}$ , then find  $y'$ . 6) \_\_\_\_\_

7) Find  $y'$  if  $y = -3e^{4x^2} - 5x + 3$ .

7) \_\_\_\_\_

8) Find  $y'$  if  $y = x^2e^{3x}$ .

8) \_\_\_\_\_

9) Find  $y'$  if  $y = \frac{e^{1-x}}{x^2 - 1}$ .

9) \_\_\_\_\_

10) If  $f(x) = \frac{x^2 + 1}{e^{3x}}$ , then  $f'(x) =$

10) \_\_\_\_\_

11) Find  $f'(x)$  if  $f(x) = \frac{e^{8x^2}}{4x - 5}$

11) \_\_\_\_\_