

**MTH 162**  
**Quiz 9**  
**Spring 2011**

Show all work in a neat and organized fashion. Clearly indicate your answers.  
10 points possible.

$$(fg)' = f'g + fg' \quad \left(\frac{f}{g}\right)' = \frac{f'g - fg'}{g^2}$$

---

For each problem, find the derivative of the given function. Do not simplify your answer.

**1.**  $f(x) = 4$

**2.**  $f(x) = x^3 - 9x$

**3.**  $f(x) = 3x^{11/3} - 8x^{7/4}$

4.  $f(x) = \frac{x^3 + 5}{x + 9}$

5.  $f(x) = (x^3 - 4)(x^5 - 3x + 1)$