Directions: Find the inverse of the following functions. [Notes #84]

1. 
$$f(x) = \frac{x}{4} + 3$$

2. 
$$f(x) = x^2 - 5$$

3. 
$$f(x) = \frac{3}{2}x^2 - \frac{1}{3}$$

4. 
$$f(x) = \frac{12}{11}x - \frac{7}{4}$$

5. 
$$f(x) = \sqrt{2x-5} + 3$$

**6.** 
$$f(x) = -\sqrt{3x-2} + \frac{2}{3}$$

7. 
$$f(x) = 4\sqrt{3x^2 - 5} + 2$$

**Directions:** Find the composition of the following functions if f(x) = 5x - 3 and  $g(x) = x^2 + 2x + 1$ . [Notes #85]

8. 
$$(f \circ g)(4)$$

**9.** 
$$(f \circ g)(-2)$$

$$10. \qquad (g \circ f)(x)$$

**11.** 
$$(f \circ g)(2x^2)$$