Concepts of Algebra 2 Notes **Section 6-6: Function Operations**

***Objectives:**

*Function Operations (Don't worry about domains)

Got It? **1.** Let $f(x) = 2x^2 + 8$ and $g(x) = x - 3$. What are $f + g$ and $f - g$? What are their domains?

Got It? **2.** Let $f(x) = 3x^2 - 11x - 4$ and $g(x) = 3x + 1$. What are $f \cdot g$ and $\frac{f}{g}$ and their domains?

*Composition of Functions

Diagram for Composition of Functions

Problem 3 **Composing Functions**

Let $f(x) = x - 5$ and $g(x) = x^2$. What is $(g \circ f)(-3)$?

Got It? **4.** A store is offering a 15% discount on all items. Also, employees get a 20% employee discount. Write composite functions

a. to model taking the 15% discount and then the 20% discount.

b. to model taking the 20% discount and then the 15% discount.

c. **Reasoning** If you were an employee, which discount would you take first? Why?

Inclass: p. 402 #22, 24, 32, 40, 46
Homework: p. 401-402 #9-45(odd) *no domain
Interactmath: #9, 10, 17, 19, 21, 24, 25, 27, 31, 37, 46