*Objectives:

*Function Operations (Don't worry about domains)

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

Got lt? 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?

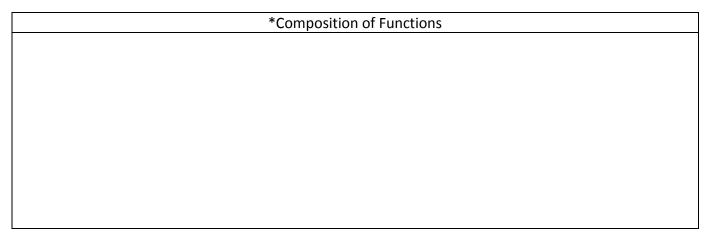


Diagram for Composition of Functions

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