

# Pre Calculus

**Date:**

**Items Needed:** .Book, Table set up for No# 80

**Objective:** The students will be able to find compositions of one function with another function and use these compositions to model real life problems.

**PA Common Core:** cc.2.2.hs.c.1, cc.2.2.hs.c.2

**Lesson:**

- Functions can be combined together to create new functions by adding, subtracting, multiplying, or dividing.
- Look at rules on p. 50.
- Quickly look at example 1 & 2.
- Note: when you do these problems you must check the domain of f, domain of g, and the domain of the final function to determine to determine what they all have in common. It is like using an “and” statement.
- Do example 4 to point out domain issues.
  
- $f \circ g$  is considered to be a composition of both functions.
- What does this mean? You put the function of g in for the x values of f.
- Do example 5.
- Do example 6 and show how to use the table feature of their calculator to get the answer.
- Do example 7 and point out the domain problems.
- Do example 10.

**Assignment:** .Have students do 11a, 12b, 13c, 14d, 16c, 17d, 18c, p. 56  
Have students do 20-26 (even), 41, 43, 45, 48, 54, 63, 64, p. 57.  
Have students do 79, 84, 85, 96, p. 57  
Have students do 80, p. 58

**Evaluation: (Could be from any one/several of the following)**

Responses from classroom questions  
Results of classroom sample problems  
Homework responses  
Check answer with Calculator  
End of the section exam

**Enrichment:**