College Algebra Quiz 4 Solution Summer 2010

NAME: _____Score_____/10

Please **print** your name

1. **T** F The sum of two functions f and g with the same domain is the function named (f+g) whose rule may be written as (f+g)(x) = f(x) + g(x) for all x in the common domain.

2. **T** F The composition of a function f with a function g is a function named $f \circ g$ whose rule is $f \circ g(x) = f(g(x))$.

3. T **F** The slope of the line through two points (x_1, y_1) and (x_2, y_2) is given by the formula $m = \frac{x_1 - x_2}{y_1 - y_2}$.

4. **T** F The y-intercept of a graph of a function f is the point (0, f(0)).

5. A function f is called a **constant** function if its rule can be written as f(x) = k for some real number k.

6. A **zero** of a function f is a domain element k for which f(k) = 0.

7. The graph of a function is the set of all points of the form **(a, f(a))** where a is an element of the domain and f(a) is the corresponding range element.

8. If f is a function and w is a domain element, then f(w) is the corresponding **range** element.

9. Unless otherwise stated, the **domain** of a function is the largest set of real numbers for which the rule makes sense.

10. Carefully and neatly sketch the graph of the identity function. Label two important points.