

College Algebra Quiz 4 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 _____ function if its rule can be written as $f(x) = k$ for some real number k .
6. A _____ 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 _____ 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 _____ element.
9. Unless otherwise stated, the _____ 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.

