

Algebra II

G-6

Composition of Functions

Identify the parts of a function:

$$f(x) = x^2 + 3x + 5$$

Evaluate each of the following using the given functions.

$$f(x) = 4x - 5$$

$$g(x) = x + 3$$

$$h(x) = x^2$$

$$f(5) =$$

$$g(5) =$$

$$h(y) =$$

$$g(\star) =$$

$$f(g(7)) =$$

$$h(f(2)) =$$

$$g(h(x)) =$$

$$g(g(1)) =$$

$$f(g(h(0))) =$$

Formal Definition of Inverse

Two functions $f(x)$ and $g(x)$ are inverses iff

a)

b)

Notation for inverse functions:

The inverse of $f(x)$ is written _____

Prove or disprove: $f(x) = x^2$ and $g(x) = \sqrt{x}$ are inverses.

Assignment:

Handout G-6

1-25 all