

SI Worksheet 9

Combining and Composing Functions

Let $f(x) = 2x - 1$, $g(x) = 3x$, and $h(x) = x^2 + 1$. Compute the following:

1) $f(g(-3))$

2) $f(h(7))$

3) $f(g(h(2)))$

4) $h(g(f(x - 1)))$

5) $g(f(h(x^2 - 5)))$

Inverse Functions

Find the inverse of the following functions:

6) $y = -8x + 16$

7) $y = x^2 - 4$

8) $y = \sqrt{x + 5}$

9) $y = \frac{3x+2}{x+2}$

10) $y = \frac{7-3x}{x-2}$