

Composite Functions Tutorial

Sunday, November 10, 2013
8:22 AM

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

$$x_{\text{input}} = 4$$

$$f(4) = 3 \times 4 + 2 \\ = 14$$

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

$$g(x) = 4x - 1 \\ g(3) = 4 \times 3 - 1 = 12 - 1 = 11$$

$$f(g(x)) = f(4x - 1) = 3(4x - 1) + 2$$

$$x = 3 \\ f(g(3)) = f(11) = 35$$

$$f(x) = x^2 - 3$$

$$g(x) = 2x - 1 \\ g(2) = 2 \times 2 - 1 = 3$$

$$f(g(2)) = f(3) \\ = 6$$

$$f(g(x)) = f(2x - 1) \\ = (2x - 1)^2 - 3$$

Composite function = the output of one function is used as the input to another function