

1.3 Composite Functions

If $f(x) = x^2$ and $g(x) = 3x + 2$, then what is $f(g(3))$?

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Domain of $f(g(x))$

If $f(x) = \sqrt{x-3}$ and $g(x) = x^2 + 2$, find the following:

$$(f \circ g)(x) =$$

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$$(g \circ f \circ f)(19) =$$

Decomposing a Composite Function

If $f(g(x)) = (x-2)^2 + (x-2) + 1$, determine $f(x)$ and $g(x)$

If $g(f(x)) = \sqrt{x^3 + 1}$, determine $f(x)$ and $g(x)$

Use the graph below to find the following:

$$f(g(2)) =$$

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

$$(f \circ f)(-5) =$$

