NAME _____ DATE _____

Module 9 Using Functions
Lesson 6 Evaluating Composite Functions

guided practice

Set 1

1. Evaluate $(f \circ g)(2)$ and $(g \circ f)(2)$.
$f(x) = x - 6$
$g(x) = 3x^2$

$(f \circ g)(2) =$ _____

$(g \circ f)(2) =$ _____

2. Evaluate $(f \circ g)(5)$ and $(g \circ f)(5)$.
$f(x) = x - 4$
$g(x) = x^2 + 3$

$(f \circ g)(5) =$ _____

$(g \circ f)(5) =$ _____

3. Evaluate $f(g(-1))$ and $g(f(-1))$.
$f(x) = -2x$
$g(x) = x^3$

$f(g(-1)) =$ _____

$g(f(-1)) =$ _____

4. Evaluate $f(g(0))$ and $g(f(0))$.
$f(x) = \frac{1}{3}x - \frac{1}{3}$
$g(x) = 3x + 1$

$f(g(0)) =$ _____

$g(f(0)) =$ _____

Set 2

1. Find $(f \circ g)(x)$ and $(g \circ f)(x)$.
$f(x) = x - 4$
$g(x) = x + 3$

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

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

2. Find $(f \circ g)(x)$ and $(g \circ f)(x)$.
$f(x) = \frac{1}{2}x$
$g(x) = \frac{2}{5}x$

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

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

3. Find $f(g(x))$ and $g(f(x))$.
$f(x) = 6x$
$g(x) = x^2$

$f(g(x)) =$ _____

$g(f(x)) =$ _____

Set 3

1. Determine if the two functions are inverses of each other.

$f(x) = \frac{1}{3}x - 2$

$g(x) = 3x + 6$

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_____

2. Determine if the two functions are inverses of each other.

$f(x) = \frac{1}{4}x + 2$

$g(x) = 4x - 12$

$f(g(x)) =$ _____

$g(f(x)) =$ _____

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