

## Assignment: Composite function

Date \_\_\_\_\_

**Perform the indicated operation.**

1)  $f(x) = 4x + 4$   
 $g(x) = 3x^2 - 2x$   
Find  $(f \circ g)(x)$

2)  $h(x) = x^2 + 2x$   
 $g(x) = 3x - 2$   
Find  $(h \circ g)(x)$

3)  $g(n) = 4n - 4$   
 $f(n) = -4n + 2$   
Find  $(g \circ f)(n)$

4)  $h(n) = 4n + 4$   
Find  $(h \circ h)(n)$

5)  $h(x) = x^2 + 3$   
 $g(x) = x + 3$   
Find  $(h \circ g)(4)$

6)  $g(x) = x - 2$   
 $h(x) = 2x + 1$   
Find  $(g \circ h)(0)$

7)  $g(x) = x^2 - 4$   
 $h(x) = 4x - 2$   
Find  $(g \circ h)(4)$

8)  $h(x) = 3x - 1$   
 $g(x) = -3x + 3$   
Find  $(h \circ g)(-3)$

9)  $f(x) = 3x$   
 $g(x) = 2x^2 - 5x$   
Find  $(f \circ g)(x - 2)$

10)  $f(x) = 2x + 5$   
Find  $(f \circ f)(3x)$

## Answers to Assignment: Composite function

1)  $12x^2 - 8x + 4$

5) 52

9)  $6x^2 - 39x + 54$

2)  $9x^2 - 6x$

6) -1

10)  $12x + 15$

3)  $-16n + 4$

7) 192

4)  $16n + 20$

8) 35

