

#3 Composition of Functions

Kuta Software - Infinite Algebra 2

Name _____

Function Operations

Date _____ Period _____

Perform the indicated operation.

1) $g(n) = n^2 + 4 + 2n$
 $h(n) = -3n + 2$
~~Find $(g \cdot h)(1)$~~
 $g(h(2))$

2) $f(x) = 4x - 3$
 $g(x) = x^3 + 2x$
~~Find $(f - g)(4)$~~ $f(g(-3))$

3) $h(x) = 3x + 3$
 $g(x) = -4x + 1$
~~Find $(h + g)(10)$~~
 $h(g(x))$

4) $g(a) = 3a + 2$
 $f(a) = 2a - 4$
~~Find $(\frac{g}{f})(3)$~~ $f(g(a))$

5) $g(x) = 2x - 5$
 $h(x) = 4x + 5$
~~Find $g(3) - h(3)$~~
 $g(h(x))$

6) $g(a) = 2a - 1$
 $h(a) = 3a - 3$
~~Find $(g \cdot h)(-4)$~~
 $h(g(a))$

7) $g(t) = t^2 + 3$
 $h(t) = 4t - 3$
~~Find $(g \cdot h)(-1)$~~
 $g(h(t))$

8) $g(n) = 3n + 2$
 $f(n) = 2n^2 + 5$
~~Find $g(f(2))$~~ $f(g(n))$

9) $g(x) = -x^2 - 1 - 2x$
 $f(x) = x + 5$
~~Find $(g - f)(x)$~~
 $g(f(x))$

10) $f(x) = 3x - 1$
 $g(x) = x^2 - x$
~~Find $(\frac{f}{g})(x)$~~
 $g(f(x))$

11) $g(a) = -3a - 3$
 $f(a) = a^2 + 5$
~~Find $(g - f)(a)$~~ $g(f(a))$

12) $h(t) = 2t + 1$
 $g(t) = 2t + 2$
~~Find $(h - g)(t)$~~ $h(g(t))$

