

## Composition of Functions Worksheet

Name \_\_\_\_\_

I.  $f(x) = 2x - 1$   $g(x) = 3x$   $h(x) = x^2 + 1$  Compute the following:

1.  $f(g(x))$

2.  $f(h(x))$

3.  $g(h(x))$

4.  $h(f(x))$

5.  $g(f(x))$

6.  $h(g(x))$

7.  $f(f(x))$

8.  $h(h(x))$

9.  $g(g(x))$

II.  $f(x) = 9 - x$   $g(x) = x^2 + x$   $h(x) = x - 2$  Compute the following:

10.  $g(f(x))$

11.  $f(g(x))$

12.  $h(f(x))$

13.  $f(h(x))$

14.  $h(g(x))$

15.  $g(h(x))$

16.  $g(g(x))$

17.  $h(h(x))$

18.  $f(f(x))$

I.  $f(x) = 2x - 1$     $g(x) = 3x$     $h(x) = x^2 + 1$

Compute the following:

1.  $f(g(-3))$

2.  $f(h(7))$

3.  $g(h(24))$

4.  $h(f(9))$

5.  $g(f(0))$

6.  $h(g(-4))$

7.  $f(f(2))$

8.  $h(h(5))$

9.  $g(g(-6))$

II.  $f(x) = 9 - x$     $g(x) = x^2 + x$     $h(x) = x - 2$

Compute the following:

10.  $g(f(3))$

11.  $f(g(4))$

12.  $h(f(-6))$

13.  $f(h(-3))$

14.  $h(g(11))$

15.  $g(h(-9))$

16.  $g(g(5))$

17.  $h(h(13))$

18.  $f(f(-8))$