

Name: Key Date: \_\_\_\_\_

Let  $f(x) = 2x - 1$ ,  $g(x) = 3x$ , and  $h(x) = x^2 + 1$ . Compute the following.

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

$-19$

2.  $f \circ h(7)$

$99$

3.  $g(h(24))$

$1731$

4.  $f(g(h(2)))$

$29$

5.  $h \circ g \circ f(5)$

$730$

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

$219$

7.  $f(x+1)$

$2x + 1$

8.  $g(3a)$

$9a$

9.  $h(x-2)$

$x^2 - 4x + 5$

Let  $f(x) = -3x + 7$  and  $g(x) = 2x^2 - 8$ . Compute the following.

10.  $(f \circ g)(x)$

$-6x^2 + 31$

11.  $g(f(x))$

$18x^2 - 84x + 90$

12. Find  $(g \circ g)(x)$

$8x^4 - 64x^2 + 120$

13.  $f \circ g \circ f(4)$

$-119$