

## Composition of Functions Worksheet

Name \_\_\_\_\_

I. Let  $f(x) = 2x - 1$ ,  $g(x) = 3x$ , and  $h(x) = x^2 + 1$ . 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. $f(g(h(2)))$ | 8. $h(g(f(5)))$ | 9. $g(f(h(-6)))$ |

II. Let  $f(x) = 9 - x$ ,  $g(x) = x^2 + x$ , and  $h(x) = x - 2$ . 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. $g(h(f(5)))$ | 17. $h(g(f(13)))$ | 18. $f(g(h(-8)))$ |