

## Extra Composition Assignment

Date \_\_\_\_\_ Block \_\_\_\_\_

**Perform the indicated operation.**

1)  $f(n) = n - 1$   
 $g(n) = 3n - 2$   
 Find  $f(g(4))$

2)  $g(n) = 3n + 5$   
 $h(n) = n - 5$   
 Find  $g(h(-8))$

3)  $f(t) = 2t + 3$   
 $g(t) = t + 4$   
 Find  $f(g(0))$

4)  $g(x) = 4x - 4$   
 $h(x) = x - 5$   
 Find  $g(h(-8))$

5)  $g(n) = 2n - 4$   
 $f(n) = n + 2$   
 Find  $g(f(4))$

6)  $h(x) = -3x + 3$   
 Find  $h(h(4))$

7)  $f(x) = 4x - 4$   
 $g(x) = -2x^3 - 2x^2$   
 Find  $f(g(-1))$

8)  $g(x) = 3x - 5$   
 $h(x) = 4x$   
 Find  $g(h(1))$

9)  $f(t) = 3t^2 - 5$   
 Find  $f(f(-1))$

10)  $g(a) = 3a - 1$   
 $h(a) = 4a + 5$   
 Find  $g(h(10))$

11)  $g(x) = -4x + 4$   
 $h(x) = 4x - 1$   
 Find  $g(h(x))$

12)  $g(n) = -4n - 3$   
 $f(n) = -2n^2 + 3n$   
 Find  $g(f(n))$

13)  $g(a) = a - 3$   
 $f(a) = 3a^3 + 2$   
 Find  $g(f(a))$

14)  $g(x) = x^2 + 5$   
 $f(x) = 4x - 3$   
 Find  $g(f(x))$

15)  $f(n) = 2n$   
 $g(n) = n - 3$   
 Find  $f(g(n))$

16)  $g(n) = n + 3$   
 $f(n) = n^2 + 1$   
 Find  $g(f(n))$

17)  $g(t) = 2t - 2$   
 $f(t) = 3t + 4$   
 Find  $g(f(t))$

18)  $h(x) = 3x^3 - 1$   
 $g(x) = x + 3$   
 Find  $h(g(x))$

19)  $g(x) = x^3 - 5$   
 $h(x) = 2x - 5$   
 Find  $g(h(x))$

20)  $f(n) = 4n - 3$   
 $g(n) = n^2 - 3$   
 Find  $f(g(n))$

## Answers to Extra Composition Assignment

1) 9

5) 8

9) 7

13)  $3a^3 - 1$

17)  $6t + 6$

20)  $4n^2 - 15$

2) -34

6) 30

10) 134

14)  $16x^2 - 24x + 14$

18)  $3x^3 + 27x^2 + 81x + 80$

3) 11

7) -4

11)  $-16x + 8$

15)  $2n - 6$

19)  $8x^3 - 60x^2 + 150x - 130$

4) -56

8) 7

12)  $8n^2 - 12n - 3$

16)  $n^2 + 4$