

## Composition 1

**Perform the indicated operation.**

1)  $g(n) = 3n + 4$   
 $h(n) = 2n + 4$   
Find  $g(-7) - h(-7)$

2)  $g(n) = 4n - 5$   
 $h(n) = 4n - 1$   
Find  $g(3) - h(3)$

3)  $f(n) = n^2 + 2$   
 $g(n) = n + 1$   
Find  $f(4) \cdot g(4)$

4)  $h(n) = 2n + 2$   
 $g(n) = -4n - 2$   
Find  $h(-9) \div g(-9)$

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

6)  $h(n) = 2n - 1$   
 $g(n) = n^2 - 1$   
Find  $h(10) + g(10)$

7)  $g(x) = 2x + 2$   
 $h(x) = x^2 + 3$   
Find  $\left(\frac{g}{h}\right)(5)$

8)  $g(x) = 2x - 2$   
 $h(x) = 2x^2 + 3x$   
Find  $(g - h)(-6)$

9)  $f(a) = -4a + 1$   
 $g(a) = a^2 - a$   
Find  $(f - g)(5)$

10)  $f(a) = a + 2$   
 $g(a) = 2a + 5$   
Find  $(f + g)(-5)$

$$11) \begin{aligned} g(x) &= -2x + 1 \\ h(x) &= 2x - 3 \\ \text{Find } \left(\frac{g}{h}\right)(6) \end{aligned}$$

$$12) \begin{aligned} h(n) &= 3n + 2 \\ g(n) &= 2n + 4 \\ \text{Find } (h + g)(-4) \end{aligned}$$

$$13) \begin{aligned} h(a) &= 4a - 5 \\ g(a) &= a^3 - 3a \\ \text{Find } h(g(0)) \end{aligned}$$

$$14) \begin{aligned} h(x) &= 3x + 4 \\ \text{Find } h(h(-1)) \end{aligned}$$

$$15) \begin{aligned} g(t) &= t^3 - 2t \\ h(t) &= 3t + 5 \\ \text{Find } g(h(-2)) \end{aligned}$$

$$16) \begin{aligned} g(n) &= -n + 5 \\ h(n) &= 2n + 4 \\ \text{Find } g(h(-3)) \end{aligned}$$

$$17) \begin{aligned} g(x) &= -2x \\ \text{Find } (g \circ g)(-10) \end{aligned}$$

$$18) \begin{aligned} g(a) &= a + 1 \\ h(a) &= -a^2 - a \\ \text{Find } (g \circ h)(4) \end{aligned}$$

$$19) \begin{aligned} f(a) &= 4a + 1 \\ g(a) &= 4a - 1 \\ \text{Find } (f \circ g)(3) \end{aligned}$$

$$20) \begin{aligned} g(n) &= 4n - 5 \\ \text{Find } (g \circ g)(3) \end{aligned}$$