

## Function Operations

Perform the indicated operation.

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

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

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

4)  $g(a) = 3a + 2$   
 $f(a) = 2a - 4$   
Find  $\left(\frac{g}{f}\right)(3)$

5)  $g(x) = 2x - 5$   
 $h(x) = 4x + 5$   
Find  $g(3) - h(3)$

6)  $g(a) = 2a - 1$   
 $h(a) = 3a - 3$   
Find  $(g \cdot h)(-4)$

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

8)  $g(n) = 3n + 2$   
 $f(n) = 2n^2 + 5$   
Find  $g(f(2))$

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

10)  $f(x) = 3x - 1$   
 $g(x) = x^2 - x$   
Find  $\left(\frac{f}{g}\right)(x)$

11)  $g(a) = -3a - 3$   
 $f(a) = a^2 + 5$   
Find  $(g - f)(a)$

12)  $h(t) = 2t + 1$   
 $g(t) = 2t + 2$   
Find  $(h - g)(t)$