

## 3.3 Part A: Evaluate Functions

Date \_\_\_\_\_ Period \_\_\_\_\_

**Evaluate each function.**

1)  $k(x) = x^2 + 2$ ; Find  $k(7)$

2)  $k(n) = -4n$ ; Find  $k(4)$

3)  $w(x) = x^2 - 5x$ ; Find  $w(10)$

4)  $p(n) = n - 2$ ; Find  $p(0)$

5)  $p(n) = 3n - 1$ ; Find  $p(4)$

6)  $f(x) = -x^3 + 5x$ ; Find  $f(-1)$

7)  $p(n) = 3n + 1$ ; Find  $p(4)$

8)  $f(a) = 4a + 1$ ; Find  $f(8)$

9)  $h(t) = -3t$ ; Find  $h(-3t)$

10)  $h(x) = 3x - 3$ ; Find  $h(-3 - x)$

$$11) \ k(a) = a^3 + 3a; \text{ Find } k(a^2)$$

$$12) \ h(n) = 2n + 5; \text{ Find } h(n - 2)$$

**Perform the indicated operation.**

$$13) \begin{aligned} h(t) &= t^2 - t \\ g(t) &= -t + 2 \\ \text{Find } (h \cdot g)(t) \end{aligned}$$

$$14) \begin{aligned} f(t) &= 3t + 5 \\ g(t) &= t^3 + t^2 \\ \text{Find } (f + g)(t) \end{aligned}$$

$$15) \begin{aligned} g(x) &= -2x + 1 \\ f(x) &= x^3 - 5 \\ \text{Find } (g \cdot f)(x) \end{aligned}$$

$$16) \begin{aligned} g(n) &= -4n - 4 \\ f(n) &= -n - 4 \\ \text{Find } (g - f)(n) \end{aligned}$$

$$17) \begin{aligned} h(x) &= -x - 3 \\ g(x) &= 2x^3 - 5x^2 \\ \text{Find } (h \circ g)(x) \end{aligned}$$

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

$$19) \begin{aligned} g(x) &= 3x - 3 \\ h(x) &= -3x^2 + 2x \\ \text{Find } \left(\frac{g}{h}\right)(x) \end{aligned}$$

$$20) \begin{aligned} f(x) &= 2x - 4 \\ g(x) &= 3x + 3 \\ \text{Find } (f \circ g)(x) \end{aligned}$$