

## Evaluate Functions

Evaluate each function.

1)  $f(a) = a^2 - 1$ ; Find  $f(-6)$

$$(-6)^2 - 1$$

$$36 - 1$$

$$\boxed{f(-6) = 35}$$

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

$$4(5) - 2$$

$$= 20 - 2$$

$$\boxed{g(5) = 18}$$

5)  $k(t) = t^2 + 5t$ ; Find  $k(-6)$

$$(-6)^2 + 5(-6)$$

$$= 36 - 30$$

$$\boxed{k(-6) = 6}$$

7)  $k(x) = 3x + 3$ ; Find  $k(4)$

$$3(4) + 3$$

$$= 12 + 3$$

$$\boxed{k(4) = 15}$$

2)  $f(x) = 2x + 2$ ; Find  $f(-4)$

$$2(-4) + 2$$

$$= -8 + 2$$

$$\boxed{f(-4) = -6}$$

4)  $g(t) = t^2 - 2t$ ; Find  $g(4)$

$$(4)^2 - 2(4)$$

$$= 16 - 8$$

$$\boxed{g(4) = 8}$$

6)  $f(x) = x^2 - 5x$ ; Find  $f(-7)$

$$(-7)^2 - 5(-7)$$

$$= 49 + 35$$

$$\boxed{f(-7) = 84}$$

8)  $w(n) = n^3 + 5$ ; Find  $w(4)$

$$(4)^3 + 5$$

$$= 64 + 5$$

$$\boxed{w(4) = 69}$$

9)  $w(x) = -3x + 5$ ; Find  $w(3x)$

$$-3(3x) + 5$$

$$= -9x + 5$$

$$\boxed{w(3x) = -9x + 5}$$

10)  $f(n) = 4n - 1$ ; Find  $f(n - 4)$

$$4(n - 4) - 1$$

$$= 4n - 16 - 1$$

$$\boxed{f(n - 4) = 4n - 17}$$

11)  $p(x) = x + 4$ ; Find  $p(-2x)$

$$(-2x) + 4$$

$$\boxed{p(-2x) = -2x + 4}$$

12)  $h(x) = x^3 - 2x^2$ ; Find  $h(-3x)$

$$(-3x)^3 - 2(-3x)^2$$

$$= -27x^3 - 2(9x^2)$$

$$\boxed{h(-3x) = -27x^3 - 18x^2}$$

13)  $h(x) = 2x - 1$ ; Find  $h(x - 3)$

$$2(x - 3) - 1$$

$$= 2x - 6 - 1$$

$$\boxed{h(x - 3) = 2x - 7}$$

14)  $k(x) = -2x$ ; Find  $k\left(\frac{x}{2}\right)$

$$-2\left(\frac{x}{2}\right)$$

$$= -\frac{2x}{2}$$

$$\boxed{k\left(\frac{x}{2}\right) = -x}$$

15)  $w(n) = -3n + 1$ ; Find  $w(b + 2)$

$$-3(b + 2) + 1$$

$$= -3b - 6 + 1$$

$$\boxed{w(b + 2) = -3b - 5}$$

16)  $w(x) = x^2 + 3$ ; Find  $w(4x)$

$$(4x)^2 + 3$$

$$\boxed{w(4x) = 16x^2 + 3}$$