

## Unit 9.3 Evaluating Functions PRACTICE

Period \_\_\_\_\_

**Evaluate each function.**

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

 $-1$ 

2)  $k(a) = 2a - 4$ ; Find  $k(-10)$

 $-24$ 

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

 $3x + 4$ 

4)  $h(t) = -2t + 2$ ; Find  $h\left(\frac{t}{4}\right)$

 $2 - \frac{1}{2}t$ 

5)  $f(n) = n^3 + 3n^2$ ; Find  $f(-5)$

 $-50$ 

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

 $-36$ 

7)  $g(n) = n^2 + 4$ ; Find  $g\left(\frac{n}{4}\right)$

 $4 + \frac{1}{16}n^2$ 

8)  $w(t) = t^3 - 4$ ; Find  $w(-4t)$

 $-64t^3 - 4$ 

9)  $p(x) = 3|x + 1|$ ; Find  $p(1)$

 $6$ 

10)  $f(x) = |x| + 1$ ; Find  $f(7)$

 $8$ 

11)  $f(n) = |n| - 3$ ; Find  $f(3n)$

 $|3n| - 3$ 

12)  $f(n) = |n + 1|$ ; Find  $f(3 + n)$

 $|4 + n|$

13)  $f(x) = -2 \cdot 4^x - 2$ ; Find  $f(-1)$

$$-\frac{5}{2}$$

14)  $h(t) = 4^{t+1} - 1$ ; Find  $h(0)$

$$3$$

15)  $g(a) = -3 \cdot 3^{a+2}$ ; Find  $g(t-3)$

$$-3^t$$

16)  $w(t) = 2 \cdot 2^{3t}$ ; Find  $w(t+3)$

$$2^{10+3t}$$

17)  $k(x) = 3^{2x} + 2$ ; Find  $k(2)$

$$83$$

18)  $f(x) = \left| x + \frac{2}{3} \right| - \frac{5}{3}$ ; Find  $f\left(-\frac{2}{5}\right)$

$$-\frac{7}{5}$$

19)  $f(x) = \left| -x + \frac{2}{3} \right|$ ; Find  $f(2)$

$$\frac{4}{3}$$

20)  $p(n) = 2n$ ; Find  $p\left(\frac{1}{3}\right)$

$$\frac{2}{3}$$

21)  $h(n) = 5^n + 1$ ; Find  $h(-n)$

$$\frac{1}{5^n} + 1$$

22)  $k(t) = |-t| - 2$ ; Find  $k\left(\frac{2t}{3}\right)$

$$\left| -\frac{2}{3}t \right| - 2$$

23)  $g(n) = n^3 + \frac{3}{5}n$ ; Find  $g\left(n - \frac{1}{2}\right)$

$$n^3 - \frac{3}{2}n^2 + \frac{27}{20}n - \frac{17}{40}$$

24)  $f(x) = x^3 + \frac{4}{3}x$ ; Find  $f(x-2)$

$$x^3 - 6x^2 + \frac{40}{3}x - \frac{32}{3}$$