

## WS 10-6-4 "Function Notation"

**Write in function notation.**

1)  $y = 5x + 3$

2)  $C = 12n - 100$

3)  $d = 50t$

4)  $m = 4p^2 - 3p + 7$

**Write as an equation with two variables.**

5)  $f(x) = 6x - 9$

6)  $h(x) = x^2 - 5x + 9$

7)  $g(t) = 8t^3$

8)  $C(n) = 15n + 90$

**Evaluate each function.**

9)  $w(x) = 4x + 5$ ; Find  $w(-8)$

10)  $h(x) = 2x + 5$ ; Find  $h(2)$

11)  $g(n) = 4n - 5$ ; Find  $g(6)$

12)  $g(n) = n + 2$ ; Find  $g(1)$

13)  $g(n) = n^2 + 4n$ ; Find  $g(2)$

14)  $h(n) = 3n^2 - 4$ ; Find  $h(0)$

15)  $h(n) = -3n^2 - 5n$ ; Find  $h(2)$

16)  $h(x) = x^3 + 4$ ; Find  $h(-5)$

Evaluate the following expressions given  $f(x) = 4x - 2$ ,  $g(x) = 3x - 3$  and  $h(x) = 8x + 10$

17) Find  $x$  if  $f(x) = 2$

18) Find  $x$  if  $g(x) = 12$

19) Find  $x$  if  $h(x) = 10$

20) Find  $x$  if  $f(x) = 1$

21)  $f(3) + g(2)$

22)  $f(-1) + h(3)$

23)  $f(5^{\frac{1}{2}})$

24)  $g(7^{\frac{2}{3}})$

25) Find  $x$  if  $g(x) = f(x)$

26) Find  $x$  if  $f(x) = h(x)$

**Evaluate each function.**

27)  $k(a) = 4a + 2$ ; Find  $k(a - 3)$

28)  $h(t) = -2t + 2$ ; Find  $h(-3t)$

29)  $h(n) = 3n + 5$ ; Find  $h(-4n)$

30)  $h(x) = x^2 + 1$ ; Find  $h\left(\frac{x}{4}\right)$

**Write the ordered pairs that represents the following expressions.**

31)  $f(5) = 9$

32)  $g(-3) = 7$

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**Write in function notation.**

1)  $y = 5x + 3$

$f(x) = 5x + 3$

2)  $C = 12n - 100$

$C(n) = 12n - 100$

3)  $d = 50t$

$d(t) = 50t$

4)  $m = 4p^2 - 3p + 7$

$m(p) = 4p^2 - 3p + 7$

**Write as an equation with two variables.**

5)  $f(x) = 6x - 9$

$y = 6x - 9$

6)  $h(x) = x^2 - 5x + 9$

$y = x^2 - 5x + 9$

7)  $g(t) = 8t^3$

$y = 8t^3$

8)  $C(n) = 15n + 90$

$C = 15n + 90$

**Evaluate each function.**

9)  $w(x) = 4x + 5$ ; Find  $w(-8)$

$-27$

10)  $h(x) = 2x + 5$ ; Find  $h(2)$

$9$

11)  $g(n) = 4n - 5$ ; Find  $g(6)$

$19$

12)  $g(n) = n + 2$ ; Find  $g(1)$

$3$

13)  $g(n) = n^2 + 4n$ ; Find  $g(2)$

$12$

14)  $h(n) = 3n^2 - 4$ ; Find  $h(0)$

$-4$

15)  $h(n) = -3n^2 - 5n$ ; Find  $h(2)$

$-22$

16)  $h(x) = x^3 + 4$ ; Find  $h(-5)$

$-121$

Evaluate the following expressions given  $f(x) = 4x - 2$ ,  $g(x) = 3x - 3$  and  $h(x) = 8x + 10$

17) Find  $x$  if  $f(x) = 2$

$$x = 1$$

18) Find  $x$  if  $g(x) = 12$

$$x = 5$$

19) Find  $x$  if  $h(x) = 10$

$$x = 0$$

20) Find  $x$  if  $f(x) = 1$

$$x = \frac{3}{4}$$

21)  $f(3) + g(2)$

$$13$$

22)  $f(-1) + h(3)$

$$24$$

23)  $f(5^{\frac{1}{2}})$

$$6.94$$

24)  $g(7^{\frac{2}{3}})$

$$12.64$$

25) Find  $x$  if  $g(x) = f(x)$

$$x = -1$$

26) Find  $x$  if  $f(x) = h(x)$

$$x = -3$$

**Evaluate each function.**

27)  $k(a) = 4a + 2$ ; Find  $k(a - 3)$

$$4a - 10$$

28)  $h(t) = -2t + 2$ ; Find  $h(-3t)$

$$6t + 2$$

29)  $h(n) = 3n + 5$ ; Find  $h(-4n)$

$$-12n + 5$$

30)  $h(x) = x^2 + 1$ ; Find  $h\left(\frac{x}{4}\right)$

$$1 + \frac{1}{16}x^2$$

**Write the ordered pairs that represents the following expressions.**

31)  $f(5) = 9$

$$(5, 9)$$

32)  $g(-3) = 7$

$$(-3, 7)$$