

**Linear Function and Modeling**

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**Evaluate each function.**

1)  $g(x) = 4x + 1$ ; Find  $g(9)$

2)  $f(n) = 4n - 3$ ; Find  $f(-8)$

3)  $h(x) = -4x + 2$ ; Find  $x$ , so  $h(x) = 14$ .

4)  $g(n) = 3n + 2$ ; Find  $x$ , so  $g(x) = -7$ .

5)  $h(x) = x - 5$ ; Find  $h(1)$

6)  $f(n) = 2n + 5$ ; Find  $f(-9)$

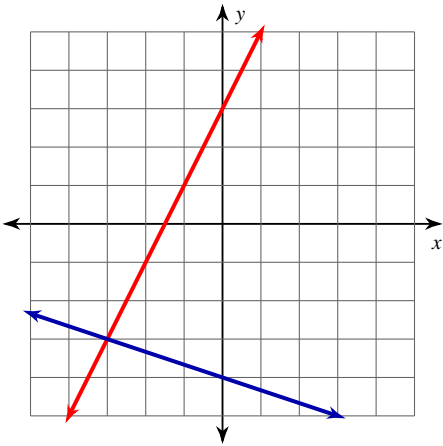
7)  $w(x) = -3x + 1$ ; Find  $x$ , so  $w(x) = 29$ .

8)  $g(x) = -2x + 5$ ; Find  $x$ , so  $g(x) = 17$ .

9)  $k(x) = x - 2$ ; Find  $k(-9)$

10)  $f(n) = 4n - 4$ ; Find  $f(3)$

11)



$f(x)$  is the INCREASING LINE.  
 $g(x)$  is the DECREASING LINE

Where does  $f(x) = g(x)$ ?

Where does  $f(x) = 1$ ?

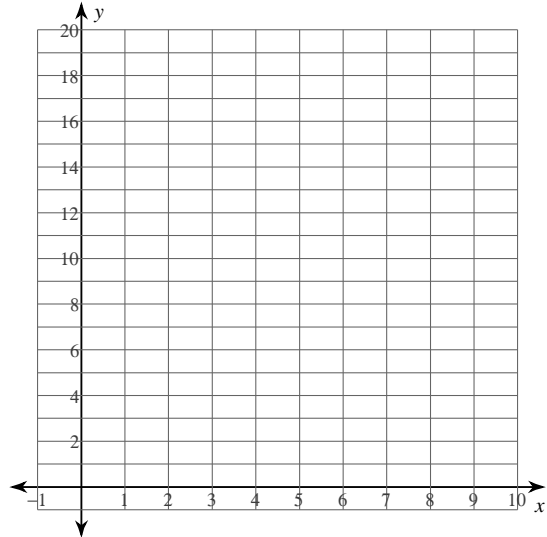
What is  $g(3)$ ?

12) Beth has \$12 saved up and is selling cookies to earn money. She charges \$2 for each box of cookies.

Write a function that represents how much money Beth has and graph it below.

If Beth sells 5 boxes of cookies how much money will she have?

If Beth has earned \$52, how many boxes of cookies did she sell?



## Answers to Linear Function and Modeling (ID: 1)

1) 37

2) -35

3) -3

4) -3

5) -4

6) -13

7) -9

8) -6

9) -11

10) 8

11) (-3, -3),  $f(-1)=1$ ,  $g(3)=-5$

12) \$22, 20

