

**3.3 Practice A**

In Exercises 1–3, evaluate the function when  $x = -2$ ,  $0$ , and  $5$ .

1.  $f(x) = x - 3$

2.  $g(x) = -2x$

3.  $h(x) = 5 - 3x$

4. Let  $c(t)$  be the number of customers in a department store  $t$  hours after 8 A.M. Explain the meaning of each statement.

a.  $c(0) = 10$

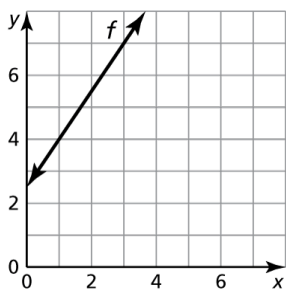
b.  $c(6) = c(7)$

c.  $c(k) = 0$

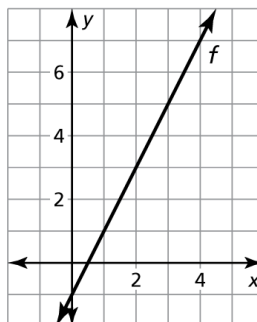
d.  $c(4) > c(3)$

In Exercises 5 and 6, find the value of  $x$  so that  $f(x) = 7$ .

5.



6.



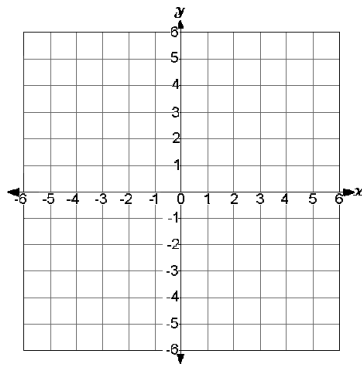
7. The function  $C(x) = 29x + 54.5$  represents the cost (in dollars) of cable for  $x$  months, including the \$54.50 installation fee.

a. How much would you have spent on cable after 6 months?

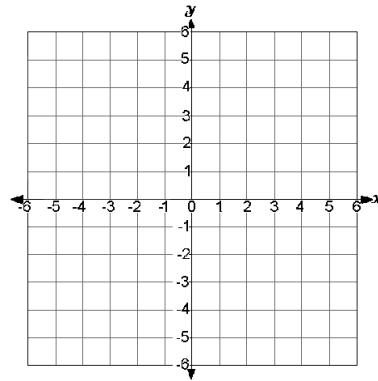
b. How many months of cable service can you have for \$344.50?

In Exercises 8-11, create an input-output table and graph the linear function.

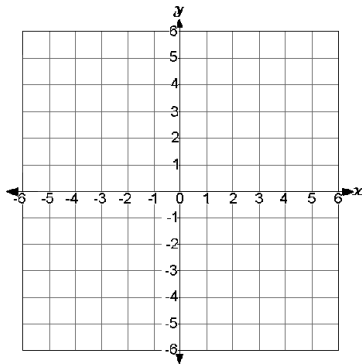
8.  $r(x) = 2$



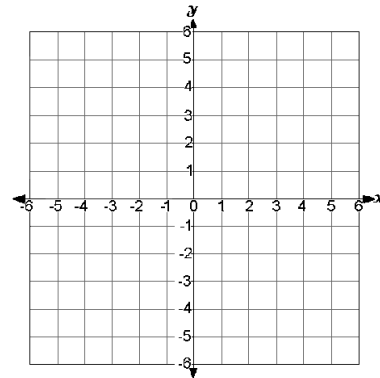
9.  $q(x) = -3x$



10.  $g(x) = \frac{2}{5}x - 3$



11.  $j(x) = -\frac{1}{3}x + 5$



15. The function  $C(x) = 35x + 75$  represents the labor cost (in dollars) for Bob's Auto Repair to replace your alternator, where  $x$  is the number of hours. The table shows sample labor costs from its main competitor, Budget Auto Repair. The alternator is estimated to take 5 hours of labor. Which company would you hire? Explain.

<b>Hours</b>	1	2	3
<b>Cost</b>	\$90	\$130	\$170