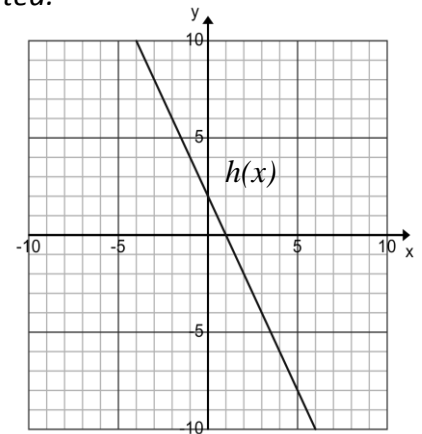
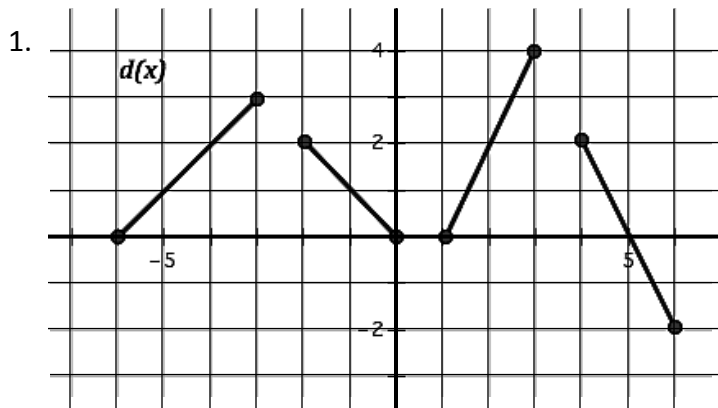


Features of Functions 5 Assignment

Use the graph of each function provided to find the values indicated.



a. $d(-5)$

b. $d(x) = 4$

a. $h(x) = 2$

b. $h(x) = -2$

c. $d(4)$

d. $d(x) = 0$

c. $h(0)$

d. $h(3)$

3. Mr. Bagley has developed a population growth model for the rodents in the field by his house. He believes that starting each spring the population can be modeled based on the number of weeks with the function $p(t) = 8(2)^t$.

A. Find $p(t) = 128$

B. Find $p(4)$

C. Find $p(10)$

D. Find the number of weeks it will take for the population to be over 20,000.

E. In a year with 16 weeks of summer where the rodents can be modeled with Mr. Bagley's model, how many rodents would he expect by the end of the summer?

X	C(x)	R(x)	P(x)
-2	0.5	12	-5
-1	1	12	-4
0	1.5	14	-3
1	2	16	-2
2	2.5	18	-1
3	3	20	0
4	3.5	22	1

4. Find $C(3)$
5. Find $R(3)$
6. Find $P(-1)$
7. Find x if $P(x) = 1$
8. Find x if $R(x) = 14$
9. Find the x -intercept of $P(x)$
10. Find the y -intercept of $C(x)$

$f(x) = 5x + 1$ and $g(x) = -3x^2$ for problems #10 – 21

10. $f(5) =$

11. $g(0) =$

12. $g(2) =$

13. $g(-3) =$

14. if $f(x) = -94$, find x

15. if $g(x) = -27$, find x .

16. if $f(x) = 41$, find x

17. $f(x) = 0$ then $x = ?$

18. Find $f(3) + g(3)$

19. Find $f(x) + g(x)$

20. Find $(f + g)(x)$

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