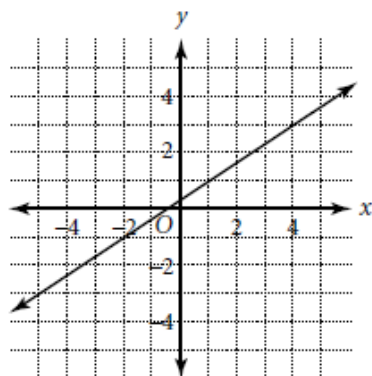


Unit 1 Linear Functions Day 1 to 6
Review of Domain, Range & Functions
Show work on a separate sheet of paper.

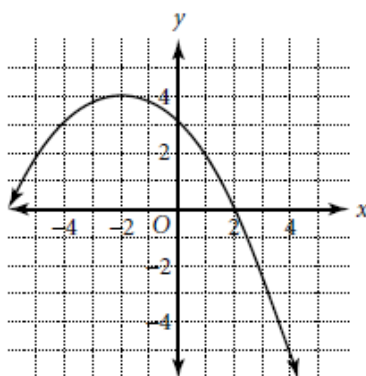
Name _____
 Date _____ Hour _____
NO WORK = NO CREDIT

In Exercises 1 – 8, a) Find the Domain b) Find the Range and c) Is the relation a function?

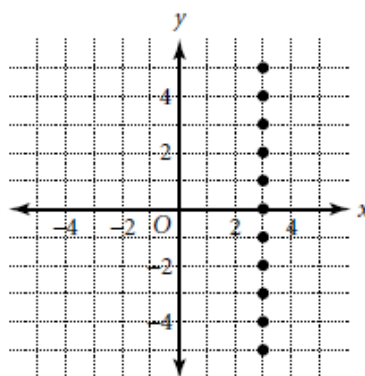
1.



2.



3.



4.

x	-2	-1	0	1	2
y	8	4	0	4	8

5.

x	1	2	3	4	5
y	2	3	2	3	2

6.

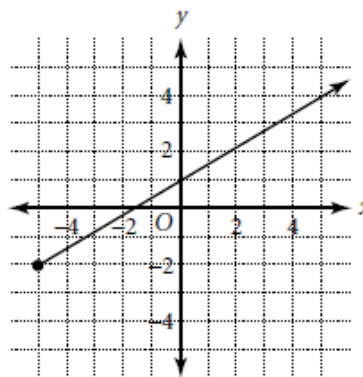
x	2	3	2	3	2
y	1	2	3	4	5

7. $\{(1, 5), (0.5, 8), (0, 3)\}$ _____ 8. $\{(32, 4), (16, 7), (16, 4)\}$ _____

State the domain and range of each function.

9. $\left\{(-1, -3), (0, 1), \left(\frac{1}{2}, 3\right), \left(\frac{3}{2}, 7\right)\right\}$

10.



11. $\{(-4.5, 6), (3, -1.5), (6.5, -5), (12, -10.5)\}$

12. $\{(-2, 12), (0, 8), (1, 9), (5, 33)\}$

Evaluate each function for the given values of x .

13. $f(x) = 20x - 4$, for $x = -2$ and $x = 8$ _____

14. $f(x) = 5x^2$, for $x = -3$ and $x = 5$ _____

15. $f(x) = 12 - 3x$, for $x = 7$ and $x = -5$ _____

16. $f(x) = 3x^2 - 2$, for $x = 11$ and $x = -4$ _____

17. $f(x) = 3x - x^2$, for $x = 0.5$ and $x = 0$ _____

Use the domain $\{-2, 0, 3\}$ to find the range of each function.

18. $f(x) = 2x - 1$

19. $G(x) = 2x^2 + 5$

Find the domain and range of each of the following real-world functions.

20. A plumber charges \$96 an hour for making house calls to do plumbing work. What are the domain and range of this function?

$P(h) = 96h$ (h = hours worked; P = plumber's bill)

Domain: _____ Range: _____

21. Laura is selling cookies to raise funds for a school club. Each cookie costs \$0.50. What are the domain and range of this function?

$M(c) = 0.5c$ (c = number of cookies sold; M = money made)

Domain: _____ Range: _____

22. Rental cars at ABC Rental Car Company cost \$100 to rent, plus \$1 per mile. What are the domain and range of this function?

$M(d) = d + 100$ (d = distance traveled; M = money spent)

Domain: _____ Range: _____

23. Jimmy has to fill up his car with gasoline to drive to and from work next week. If gas costs \$3.29 per gallon, and his car holds a maximum of 18 gallons, write a function to represent this scenario. What is the domain and range of the function?

Independent Variable: _____ Dependent Variable: _____

Define a variable for the unknown. Use the variable to write a function rule.

Function: _____

Domain: _____ Range: _____