

6)  $\{(-6, 9), (-3, 5), (-1, -9), (4, -9)\}$

**Determine whether the relation is a function.**

1)  $\{(-1, -1), (3, 8), (6, -6), (7, -5), (11, -6)\}$

7)  $\{(-3, -6), (-2, -8), (3, -8), (3, -6)\}$

2)  $\{(-4, -8), (-2, 5), (2, -6), (2, 7)\}$

8)  $\{(-5, 8), (-2, -3), (2, -5), (5, -3)\}$

3)  $\{(-6, -6), (-6, -9), (1, -6), (3, -1), (10, 6)\}$

9)  $\{(-1, -9), (3, -1), (5, -9), (9, 2), (12, -2)\}$

4)  $\{(1, -4), (1, 2), (4, 6), (8, 3), (12, -5)\}$

10)  $\{(-1, 4), (2, 7), (4, 6), (7, -9), (12, 1)\}$

5)  $\{(-8, 1), (-8, -8), (1, -5), (3, -1), (9, 5)\}$

11)  $\{(-5, -2), (-2, -7), (3, 2), (6, -4)\}$

Give the domain and range of the relation.

12)  $\{(-2, -6), (-8, 3), (8, 1), (8, 9)\}$

13)  $\{(-2, -9), (-7, -4), (4, -7), (4, -3)\}$

14)  $\{(-1, -4), (6, -8), (3, -2), (-8, 1)\}$

15)  $\{(5, -8), (5, -2), (-5, -5), (6, -9), (-10, 6)\}$

16)  $\{(-1, 5), (-1, 9), (-8, -6), (-11, -5), (-5, 1)\}$

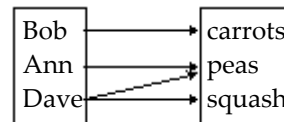
17)  $\{(11, -4), (-5, -3), (-5, 0), (4, 3), (20, 5)\}$

Determine the domain and range of the relation. State whether the relation is a function or not a function.

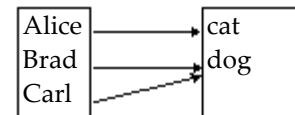
18)

5	→	25
7	→	35
9	→	45
11	→	55

19)



20)



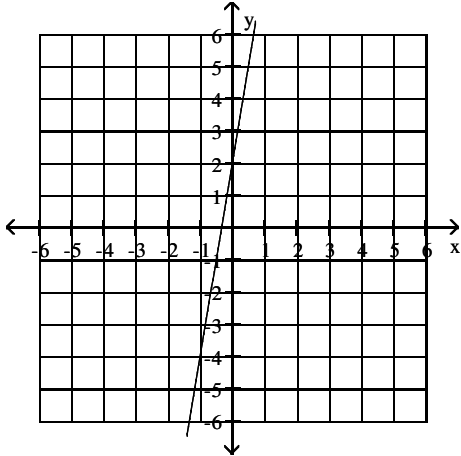
21) 

x	5	8	5	3
y	7	9	8	15

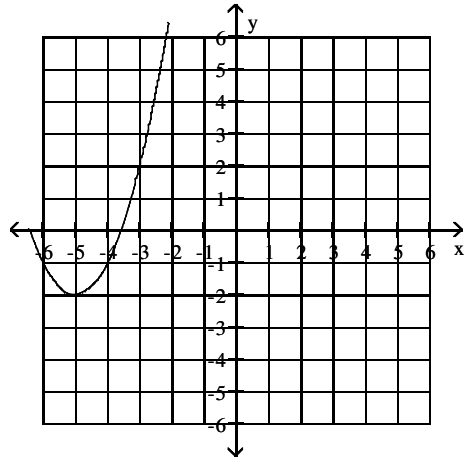
$$22) \begin{array}{c|c|c|c|c} x & -9 & -8 & 8 & 9 \\ \hline y & 8 & 12 & 8 & 12 \end{array}$$

Use the graph to determine the function's domain and range.

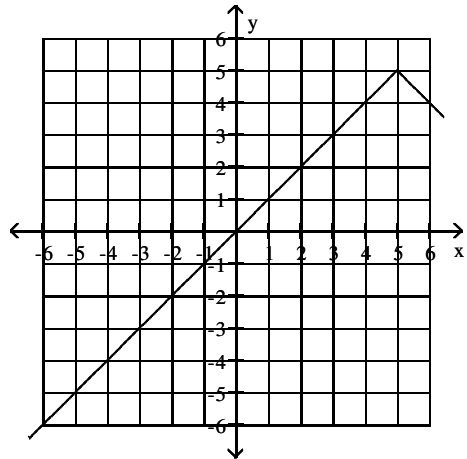
23)



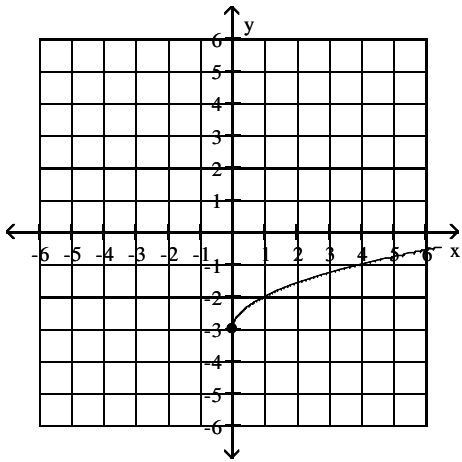
24)



25)



26)



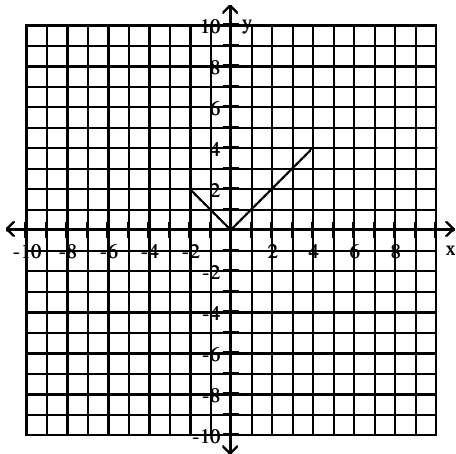
Determine whether the equation defines y as a function of x.

28)  $x + y = 1$

29)  $6x + 3y = 12$

30)  $x^2 + y = 49$

27)



31)  $x + y^2 = 25$

32)  $x^2 + y^2 = 81$

33)  $y^2 = 6x$

$$34) x = y^2$$

$$40) |x| - y = 3$$

$$35) y = x^3$$

$$36) y = -\sqrt{x+3}$$

$$37) y = \sqrt{4x-2}$$

$$38) x + y^3 = 8$$

$$39) xy + 8y = 1$$

## Answer Key

Testname: 1.6FUNCTIONSLEHMANV02

- 1) Function
- 2) Not a function
- 3) Not a function
- 4) Not a function
- 5) Not a function
- 6) Function
- 7) Not a function
- 8) Function
- 9) Function
- 10) Function
- 11) Function
- 12) domain = {8, -8, -2}; range = {1, 3, -6, 9}
- 13) domain = {-2, 4, -7}; range = {-9, -7, -4, -3}
- 14) domain = {-8, -1, 6, 3}; range = {1, -4, -8, -2}
- 15) domain = {-10, 6, 5, -5}; range = {6, -9, -2, -5, -8}
- 16) domain = {-5, -8, -1, -11}; range = {1, -6, 9, -5, 5}
- 17) domain: {11, 4, -5, 20}; range: {-4, -3, 0, 3, 5}
- 18) domain: {5, 7, 9, 11}  
range: {25, 35, 45, 55}  
function
- 19) domain: {Bob, Ann, Dave}  
range: {carrots, peas, squash}  
not a function
- 20) domain: {Alice, Brad, Carl}  
range: {cat, dog}  
function
- 21) domain: {5, 3, 8}  
range: {8, 15, 9, 7}  
not a function
- 22) domain: {-9, -8, 8, 9}  
range: {8, 12}  
function
- 23) domain:  $(-\infty, \infty)$   
range:  $(-\infty, \infty)$
- 24) domain:  $(-\infty, \infty)$   
range:  $[-2, \infty)$
- 25) domain:  $(-\infty, \infty)$   
range:  $(-\infty, 5]$
- 26) domain:  $[0, \infty)$   
range:  $[-3, \infty)$
- 27) domain:  $(-\infty, \infty)$   
range:  $[0, 4]$
- 28) y is a function of x
- 29) y is a function of x
- 30) y is a function of x
- 31) y is not a function of x
- 32) y is not a function of x
- 33) y is not a function of x
- 34) y is not a function of x
- 35) y is a function of x

## Answer Key

Testname: 1.6FUNCTIONSLEHMANV02

36)  $y$  is a function of  $x$

37)  $y$  is a function of  $x$

38)  $y$  is a function of  $x$

39)  $y$  is a function of  $x$

40)  $y$  is a function of  $x$