



NAME : _____

CLASS : _____

DATE : _____

Ch. 1 Functions (Summative Review)

35 Questions

1. Evaluate $f(-2)$ if $f(x) = x+3$

a) -1

b) 1

c) 5

d) -5

2. Given

$f(x) = 2x^2 + 5x - 17$, find $f(-1)$.

a) $f(-1) = -20$

b) $f(-1) = -24$

3. $h(t) = -t + 3$; Find $h(-5)$ Evaluate the function for the given value:

a) 8

b) -7

c) 6

d) 2

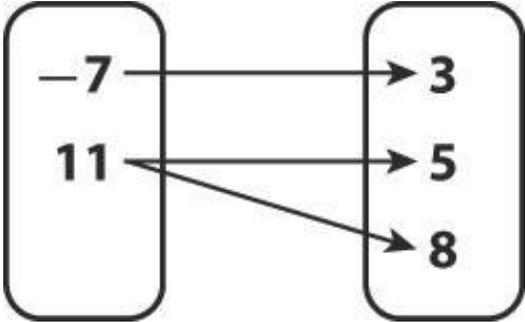
4. $w(x) = 2x^3 + 3x$; Find $w(3)$ Evaluate the function for the given value:

a) -5

b) 63

c) 450

d) 5

5.  What is the range of the relation shown on the mapping diagram?

a) $R:\{3, 5, 8\}$

b) $R:\{-7, 11\}$

c) $R:\{3, 5, 8, 12\}$

d) $R:\{\text{all real numbers}\}$

6. A set of ordered pairs is called what?

a) Coordinates

b) Relation

c) Function

d) Vertical Line Test

7. Given the points (3, 5) (2, 4) (9, 0) and (?, 6). What could replace the ? to create a non-function?

a) 1

b) 3

c) 4

d) 7

8. Which ordered pair could you add to the following list of points to create a function? (3, 5) (4, 9) (2, 5)

a) (3, 7)

b) (4, 1)

c) (1, 9)

d) (2, 6)

9.

x	1	2	3	2
y	1	4	9	-4

Does the table represent a function?

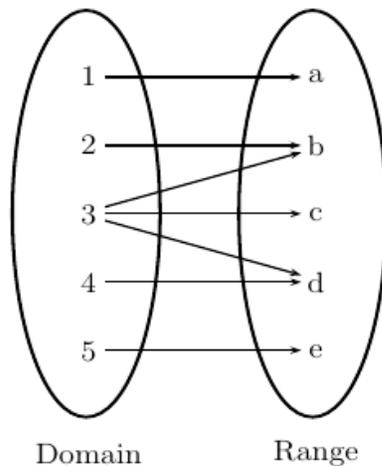
a) Yes, there is a repeated x-value.

b) No, there aren't any repeated y-values.

c) Yes, there are repeated y-values.

d) No, there is a repeated x-value.

10.



Does the mapping represent a function?

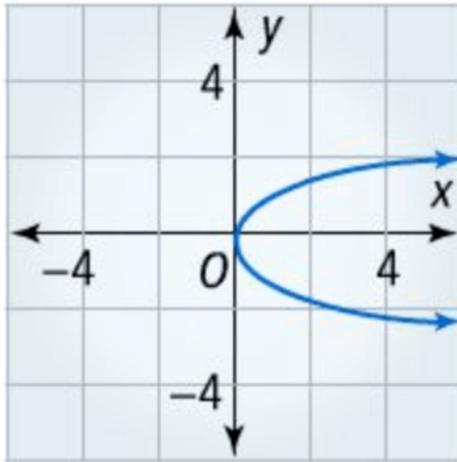
a) Yes

b) No

c) Sometimes

d) IDK

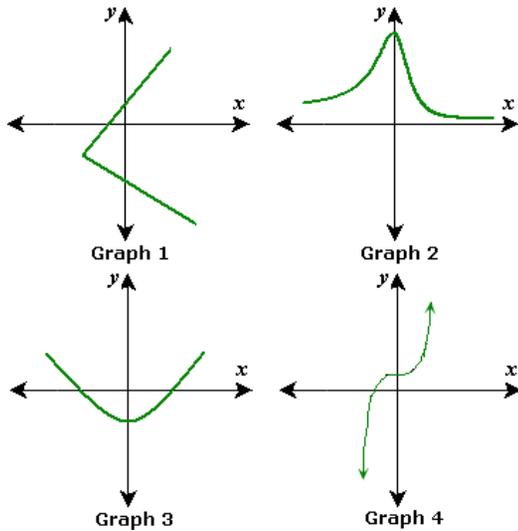
11.



a) Function

b) Not a Function

12.



Which graph does NOT pass the vertical line test?

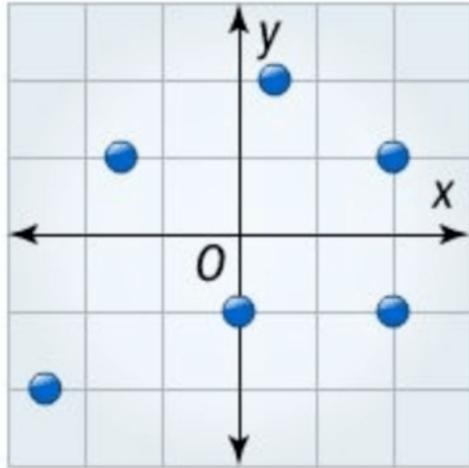
a) Graph 1

b) Graph 2

c) Graph 3

d) Graph 4

13.



a) Function

b) Not a Function

14. What is the definition of function?

a) Has inputs and outputs

b) Every input has only ONE output

c) Inputs have different outputs every time

d) x-values and y-values

15. Which set of values is a function?

a) (9,5) (10,5) (9,-5) (10,-5)

b) (3,4) (4,-3) (7,4) (3, 8)

c) (6,-5) (7, -3) (8, -1) (9, 1)

d) (2, -2) (5, 9) (5, -7) (1, 4)

16. For the function $f(x) = -3(x-1)$ find $f(0)$.

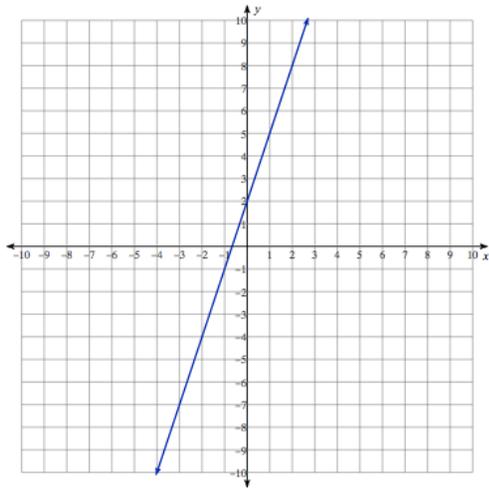
a) 0

b) -3

c) 3

d) -1

17.



What is $f(1)$?

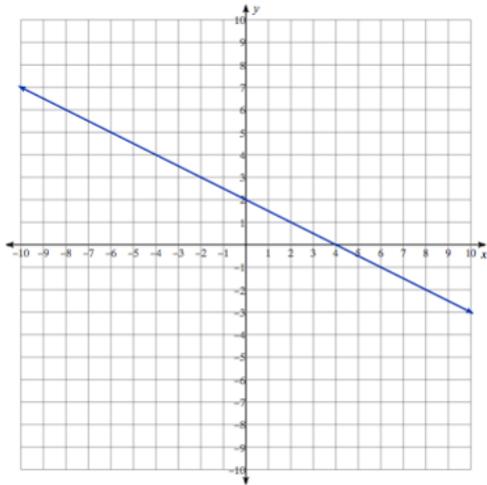
a) 1

c) 0

b) 5

d) 4

18.



What is x if
 $f(x) = -2$?

a) 4

c) 3

b) 0

d) 8

19. Given $h(x) = -x^2 + 3x$, find $h(5)$.

a) $h(5) = 40$

b) $h(5) = -10$

20. For the function, $y = 2x^4 + 3$, which variable represents the input?

a) y

b) x

c) q

d) s

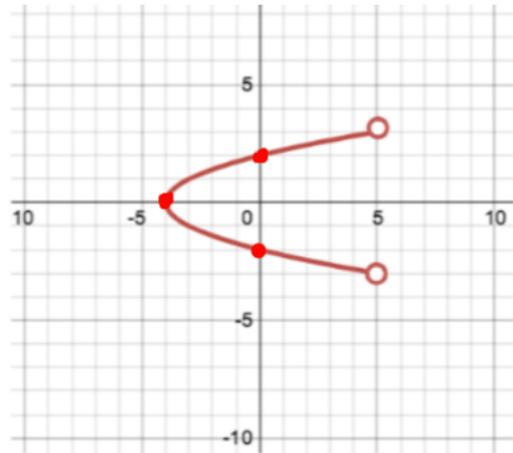
21. For the function $\{(0,1), (1,-3), (2,-4), (-4,1)\}$, write the domain and range.

a) D: $\{1, -3, -4,\}$
R: $\{0, 1, 2, -4\}$

b) D: $\{0, 1, 2, -4\}$
R: $\{1, -3, -4\}$

c) D: $\{0, 1, 2, 3, 4\}$
R: $\{1, -3, -4\}$

22.



What is the domain?

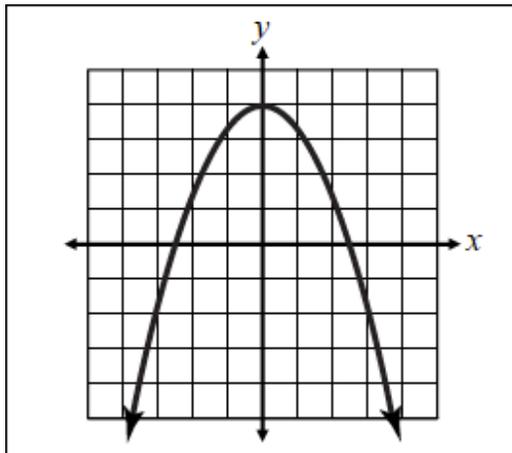
a) $-4 < x \leq 5$

c) $-3 < y < 3$

b) $-4 \leq x < 5$

d) $-3 \leq y \leq 3$

23.



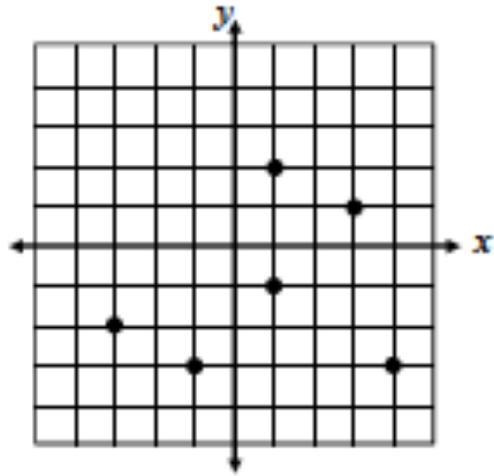
IS THIS GRAPH DISCRETE AND CONTINUOUS?

Domain:

a) CONTINUOUS

b) DISCRETE

24.

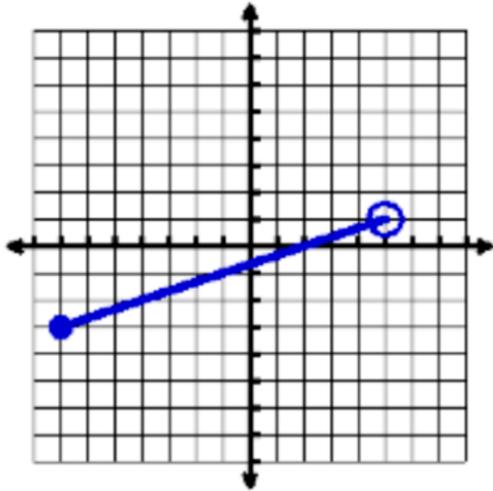


IS THIS GRAPH DISCRETE AND CONTINUOUS?

a) DISCRETE

b) CONTINUOUS

25.



What is the range of the graph?

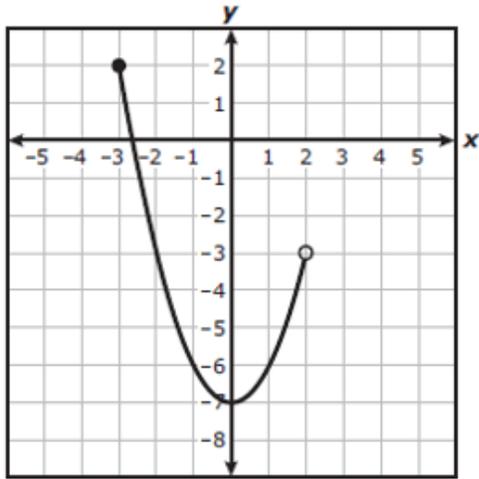
a) $-7 \leq x < 5$

b) $-3 \leq x < 1$

c) $-3 \leq y < 1$

d) $-7 \leq y < 5$

26.



What is the Range?

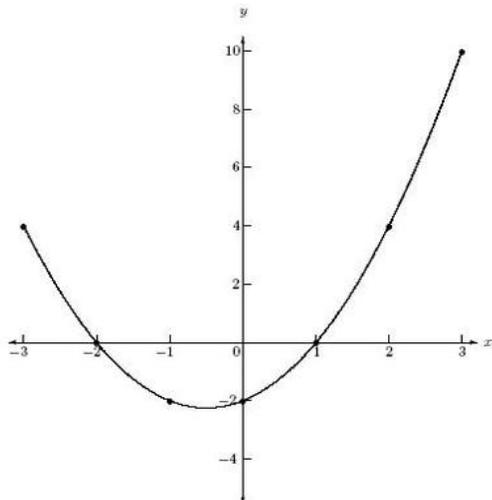
a) $-3 \leq y < 2$

c) $-7 \leq y \leq 2$

b) $-3 < y \leq 2$

d) $-7 \leq y < 2$

27.



What is the domain of the graph?

a) $-3 \leq x \leq 3$

c) $-2 \leq x \leq 10$

b) $3 \leq x \leq -3$

d) $-3 \leq x \leq 10$

28. The function $h(t)$ represents the height in inches of a plant after t weeks. What does the notation $h(4) = 5$ mean?

- a) After 5 week the plant is 4 inches tall
- b) The plant grows at a rate of $5/4$ inch per week
- c) After 4 weeks the plant is 5 inches tall
- d) The plant grows at a rate of 1 inch per week

29. The function $c(m) = 1.45m + 3.50$ represents the **cost** of a taxi for m miles. What does $c(7)$ represent?

- a) A cost of \$7 to ride the taxi
- b) The cost to ride 7 miles
- c) The minimum distance to ride a taxi
- d) The minimum cost of a taxi

30. Derek works at Subway making \$9.25 an hour. The function $d(x) = 9.25x$ tells us how much money Derek makes after x hours of working. What is the meaning of $d(4) = 37$?

- a) After 4 hours of work, Derek makes \$37.
- b) Derek needs \$4 more to have \$37 total.
- c) After working for 4 days, Derek makes \$37 total.
- d) After 4 hours of work, Derek now makes \$37 an hour instead of \$9.25.

31. Ms. Brackemyer is collecting pencils. The function $p(x)=5x+12$ tells us the total amount of pencils Ms. Brackemyer has after collecting for x number of days. What is the meaning of $p(8)=52$?

- a) Ms. Brackemyer starts with 8 pencils and ends with 52. b) After 8 days, Ms. Brackemyer has 52 pencils.
- c) Ms. Brackemyer starts with 52 pencils and gets 4 more every day. d) Every day, Ms. Brackemyer gets 4 new pencils until she has 52.

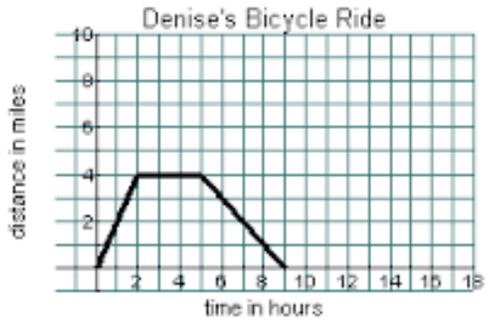
32. A company is selling bubble gum. The function $g(x)=3x+4$ tells the company how much to charge if someone buys x packages of bubble gum. Find $g(8)$ and tell what it means within the context of the problem.

- a) $g(8)=8$. This means that after 8 packages of gum, the company makes \$8. b) $g(8)=42$. This means that 8 packages of gum costs \$42.
- c) $g(8)=28$. This means that 8 packages of gum costs \$28. d) $g(8)=24$. This means that 8 packages of gum costs \$24.

33. For the function $f(x) = -3(x-1)$ find $f(0)$.

- a) 0 b) -3
- c) 3 d) -1

34.



Using the graph, what does $f(8)$ equal?

a) 8

c) 1

b) 2

d) 0

35. Given $f(x) =$

$$2x^2 + 5x - 17, \text{ find } f(-1).$$

a) $f(-1) = -20$

b) $f(-1) = -24$