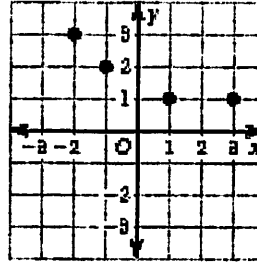


4.1-4.4 Practice Quiz

Name _____ Date _____

1. Find the domain and range of the function represented by the graph.



Answers

1. $D = -2, -1, 1, 3$

$R = 3, 2, 1$

2. $D = 0, 4, 8$

3. DISCRETE

4. $y = -\frac{1}{2}x + 4$

5. See left.

6. YES 15 SKATEBOARDS

WILL BE 60 WHEELS

7. $y = 4x$

LINEAR

8. $y = x + 1$

9. $y = -\frac{1}{2}x$

10. a. See left.

b. _____

In Exercises 2–4, use the table that shows the number of pens and notepads that you can buy with \$12.

2. Find the domain.
3. Is the domain discrete or continuous?
4. Find an equation in function form for this situation.

Pens, x	0	4	8
Notepads, y	4	2	0

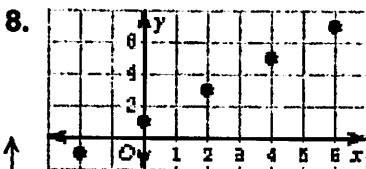
5. Complete the input-output table for the function $y = -1.2x + 4$.

x	-1	0	1	2
y	5.2	4	2.8	1.6

6. You are putting wheels on skateboards. The function $y = 4x$ represents the number y of wheels that are needed for x skateboards. Is the number 15 in the domain? Explain.

7. The perimeter P of a square is a function of the length s of a side. Write a function for this perimeter. Is the function *linear* or *nonlinear*?

Use the graph or table to write a linear function that relates y to x .



9.

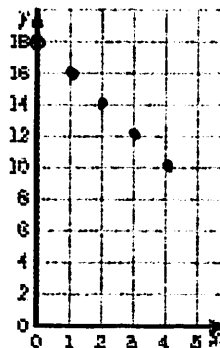
x	-12	-6	0	6
y	6	3	0	-3

$(0, 0)$
 $(6, -3)$
 $\frac{0 - -3}{0 - 6} = \frac{3}{-6} = -\frac{1}{2}$

10. The function $y = 18 - 2x$ represents the number y of eggs left in a carton after cooking x omelets.

- a. Graph the function using a domain of 0, 1, 2, 3, and 4.
b. Is the domain discrete or continuous?

DISCRETE



x	y
0	18
1	16
2	14
3	12
4	10

$(0, 4)$
 $(4, 2)$
 $\frac{4-2}{0-4} = \frac{2}{-4} = -\frac{1}{2}$

s	P
1	4
2	8
3	12
4	16

$(0, 1)$
 $(2, 3)$
 $\frac{3-1}{2-0} = \frac{2}{2} = 1$

4.1-4.4 Practice Quiz

Name _____

Date _____

11. You are packing candles in boxes. You can fit 15 candles in each box.

a. Write a linear function using function notation that represents the number of candles that you pack into x boxes.

b. How many boxes do you need to pack 75 candles? $\frac{75}{15} = \frac{15x}{15}$

Answers

11. a. $y = 15x$

b. 5 boxes

12. A

13. NO

X IS IN THE

DENOMINATOR

14. YES

CAN BE WRITTEN

IN SLOPE INTERCEPT

15. 52

12. The table shows the values y (in dollars) of Car A and Car B after x years of ownership. Which function represents a linear function: the function for Car A, for Car B, for both, or for neither of them?

Years, x	0	1	2	3
Value of Car A, y	24,000	20,000	16,000	12,000
Value of Car B, y	24,000	12,000	6000	3000

Does the equation represent a linear or nonlinear function?

Explain.

13. $y = \frac{2}{x} + 1$

14. $y + 7 = 2x + 3y - 7$

$y = -x + \frac{7}{2}$

15. The table shows the cost y (in dollars) for x theater tickets. Find the missing y -value that makes the table represent a nonlinear function.

Tickets, x	2	4	6
Cost, y	26	?	78