Name _____ Date _____ Period _____

Study Guide – Functions & Equations

1. The table at the right represents a function. What is the missing x-coordinate?

x	y
3	-9
4	-12
7	-21
?	-27

$y = -3x$

$-27 = -3x$

9

2. Which set of ordered pairs are solutions to the equation; $y = 2x - 4$?

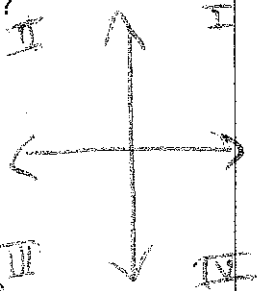
A. $(-2,-3),(0,2)$

B. $(-2,-1),(2,-3)$

C. $(1,-2),(3,2)$

D. $(-3,2),(0,4)$

3. Which ordered pair is in the same quadrant as $(2,-4)$?



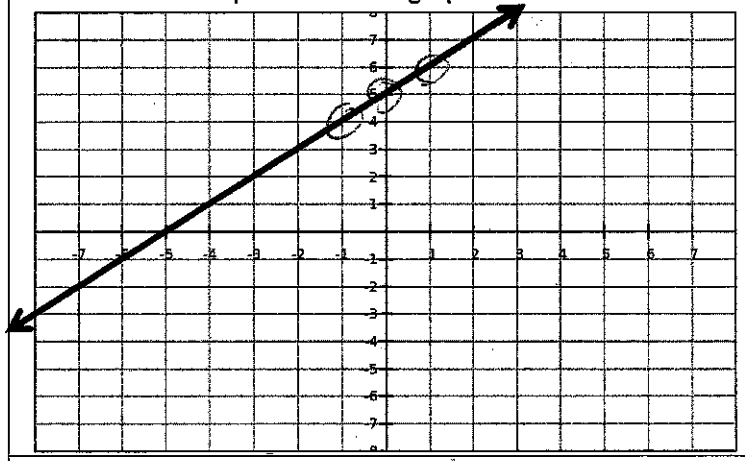
A. $(1,2)$

B. $(-3,4)$

C. $(-4,-2)$

D. $(1,-10)$

4. Which is the equation for the graphed line?



x	y
-1	4
0	5
1	6

A. $y = x - 5$

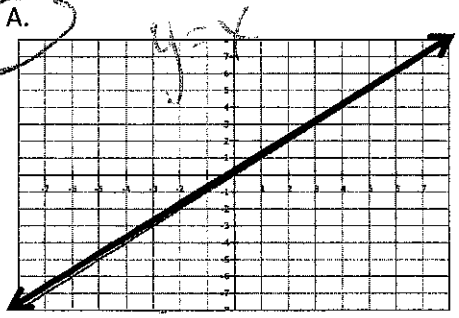
B. $y = 5x$

C. $y = x + 5$

D. $y = 5x + 5$

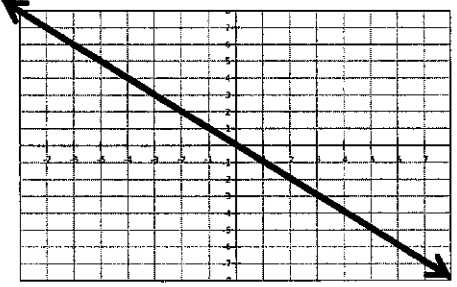
5. Which is the graph of $y = x$? Make a T chart

A.



x	y
5	5
0	0
1	1
3	3
-4	-4

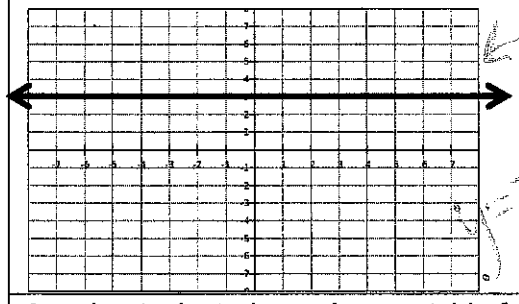
B.



$y = -x$

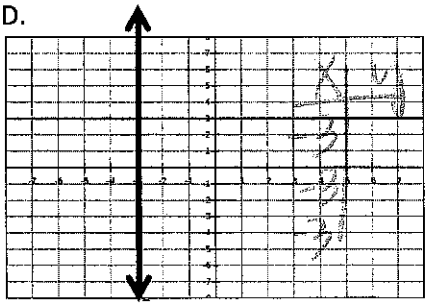
x	y
1	-1
0	0
-1	1
-2	2

C.



x	y
-3	3
-3	3
-3	3

D.



$x = -3$

6. What is the independent variable for the given situation?

Raul bought candy for \$1.99 per pound. If he paid, \$5.97, how many pounds of candy did he buy?

A.) The price per pound

B.) The number of pounds purchased

C.) The total paid

x

independent

7. (*More than one answer!) Determine which **ordered pairs** are solutions of $5x - y = 7$.

A. (2,3)

B. (0, −6)

C. (4,14)

D. (−3, −22)

8. Which ordered pair is NOT a solution to $y = 2x + 5$?

A. (2,9)

B. (5,15)

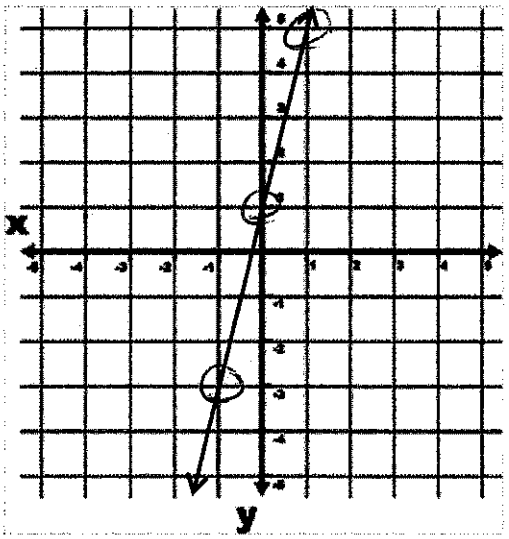
C. (3,12)

D. (4,13)

9. The table represents a function. What is the missing y-coordinate?

x	y
-2	-6
1	-3
3	-1
7	?

10. Which is the equation of the graphed line?



x	y
-1	-3
0	1
1	5

A. $y = 4x$
B. $y = 4x - 1$
C. $y = 4x + 4$
D. $y = 4x + 1$

11. Which table shows solutions for the given equation?

$y = -x + 3$

A.

x	y
2	5
0	-3
1	-2

B.

x	y
-2	1
0	3
1	4

C.

x	y
-2	5
0	3
1	2

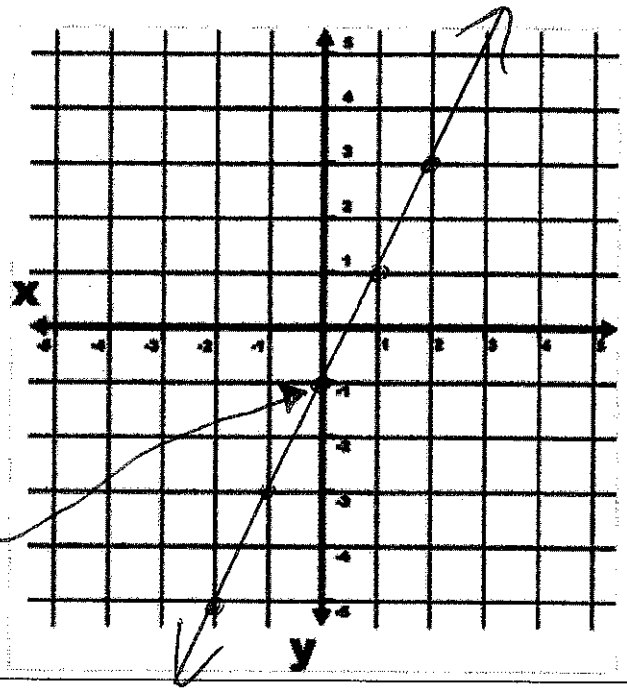
D.

x	y
2	1
0	-3
1	4

12. & 13. Complete the function table and graph your solutions.

x	$y = 2x - 1$	y	(x, y)
-2	$y = 2(-2) - 1$	-5	$(-2, -5)$
-1	$y = 2(-1) - 1$	-3	$(-1, -3)$
0	$y = 2(0) - 1$	-1	$(0, -1)$
1	$y = 2(1) - 1$	1	$(1, 1)$
2	$y = 2(2) - 1$	3	$(2, 3)$

$y = 2x - 1$



Choose the equation that best models the given situation.

14. On Monday, 380 students went on a trip to the zoo. All eight buses were filled and four students had to travel in cars. How many students were in each bus?

A. $8x = 380$
B. $8x + 4 = 380$
C. $12x = 380$
D. $8x - 4 = 380$

15. The perimeter of a rectangular swimming pool is 42 m. The length is 5 meters more than the width. What is the width of the swimming pool?

A. $2x + 10 = 42$
B. $4x = 42$
C. $x + 5 = 42$
D. $4x + 10 = 42$

16. While holding his cat, Ben steps onto a scale. The scale reads 161 pounds. Ben weighs 148 pounds. What is the weight of the cat?

A. $148x = 161$
B. $x - 148 = 161$
C. $148 + x = 161$
D. $161 \div x = 148$

17. The PTSO copied a stack of fliers for the 6th grade dance to distribute among 12 teachers. Each teacher received 30 copies of the flier. How many copies did the PTSO make?

A. $\frac{x}{12} = 30$
B. $12x = 30$
C. $360 - x = 12$
D. $\frac{30}{x} = 12$

18. Your book club has chosen a book that is 280 pages long. You agree to read 20 pages per day. How long does it take you to finish the book?

rate

A. $x + 20 = 280$
B. $20x = 280$
C. $x - 20 = 280$
D. $\frac{x}{20} = 280$

19. Ida lives 10 miles away from the airport. This is 1 more than 3 times the distance Ryan lives from the airport. How far does Ryan live from the airport?

A. $x + 3 = 10$
B. $3x - 1 = 10$
C. $3x + 1 = 10$
D. $3x = 10$