

Name: _____
7/8A

Date: _____
Classwork 9.8

Functions Review

1. The table represents the number of computer tablets sold. Determine the average rate of change over the interval $1 \leq x \leq 4$.

Week	1	3	4	8
Number Sold	32	96	128	224

2. Determine whether each relationship is a function? Justify.

a:

Input	Output
2	10
4	12
6	24
4	8

b:

Input	Output
2	10
4	10
6	6
8	8

3. Given the following points, first find the slope of the line passing through the pairs of points and then write the equation of the lines in slope-intercept form.

a: M (2, 1); A (4, 5)

b: T (-1, 0); H (3, -5)

m = _____

m = _____

y = _____

y = _____

4. Is the ordered pair $(3, -1)$ a solution to the linear equation $y = 2x - 7$? Justify.

(#5-8) State the slope and y-intercept of the graph of the following linear equations.

5. $y = x + 1$

6. $y = 7x - 5$

7. $y = -4x + 2$

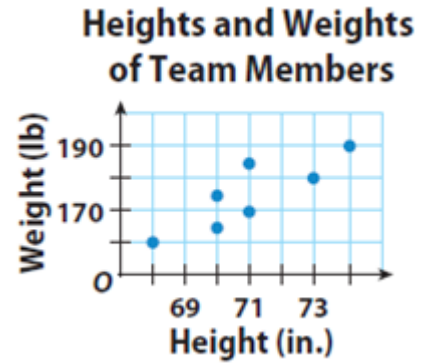
8. $y = \frac{3}{2}x - 3$

9. Write an equation of a line that passes through the point $(5, 11)$ and has a slope of -4 .

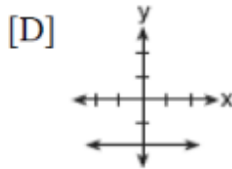
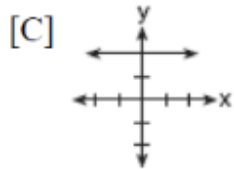
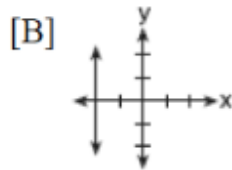
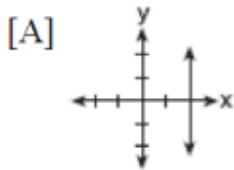
10. Find an equation of the line passing through the points $(3, 5)$ and $(5, 15)$.

11. Does the point $(1, -1)$ lie on the line $3x + 7y = 9$? Justify.

12. The graph shows the relationship between the heights and weights of the members of a basketball team. Is the relationship represented by the graph a function? Explain.



13. Which graph represents the equation $x = 2$?



14.

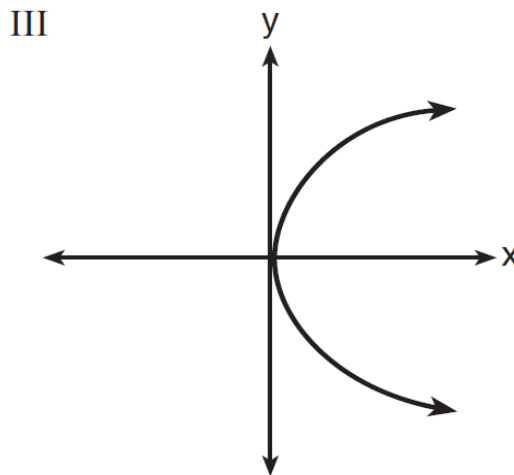
If a line is horizontal, its slope is

- [A] negative [B] 1
 [C] undefined [D] 0

15. Given the following information on four different relations, which representations are **functions**? Circle all that apply.

I

x	y
2	6
3	-12
4	7
5	5
2	-6



II $\{(1,1), (2,1), (3,2), (4,3), (5,5), (6,8), (7,13)\}$

IV $y = 2x + 1$

(#16-19) Write the following equations in slope-intercept form. Then, identify the slope and y-intercept of each equation.

16. $2x + 5y = 10$

17. $-6x + 3y = 54$

m = _____ b = _____

m = _____ b = _____

18. $4 - y = 3x$

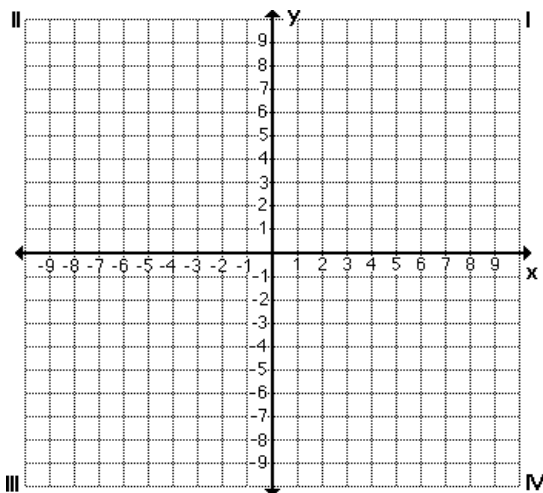
19. $15x - 12y = 24$

m = _____ b = _____

m = _____ b = _____

20. Given the linear equation: $y = \frac{1}{3}x - 3$

Part A: Graph the following linear equations using either the table method or the slope-intercept form.



Part B: What are the slope and y-intercept?

Part C: In which quadrant will the graph of the line never pass through?