Name: _____ Math 1 Test Chapter 2, Practice Test

1a. Find the slope and y-intercept of the line

a. $y = \frac{5}{3}x + 3$

slope = _____ y-intercept = ____

1b. Find the slope and y-intercept of the

$y = 8 - \frac{1}{2}x$

slope = _____ y-intercept = ____

2a. Find the x and y intercepts of the line

$3x - 5y = 15$

x-intercept = ____ y-intercept = ____

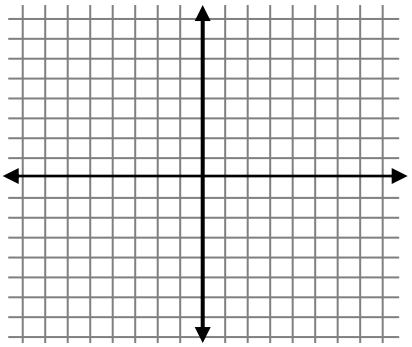
2b. Find a point on the line and the slope

$y - 6 = -2(x + 1)$

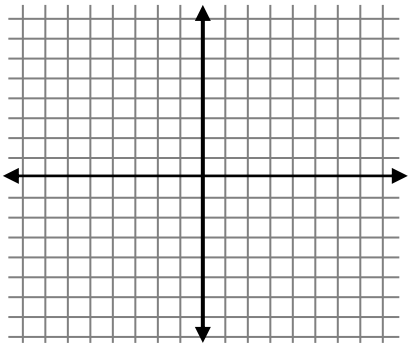
point: _____ slope: _____

Graph each line:

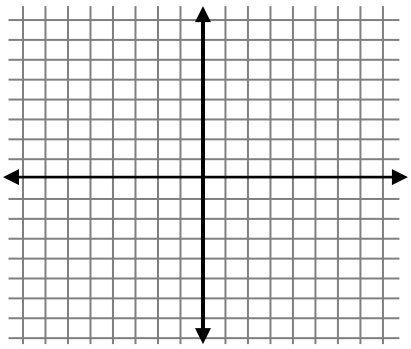
3. $y = -x - 3$



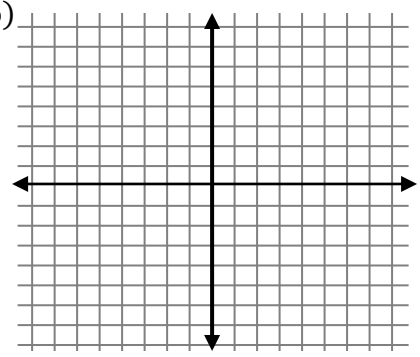
4. $y = \frac{4}{5}x + 1$



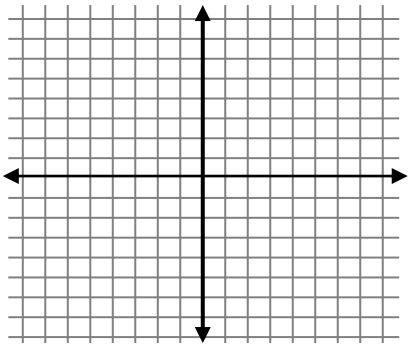
5. $y = 2$



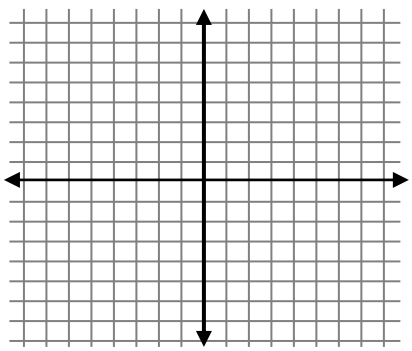
6. $y + 4 = \frac{-1}{2}(x - 6)$



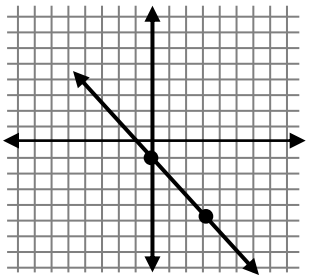
7. $2x + 7y = 14$



8. $3x - y = 6$



9. Find the equation of the line in slope-intercept form:



Slope-intercept form: _____

10. Find the equation of the line in slope-intercept form:

Through the points (-1, 1) and (3, 9)

Slope-intercept form: _____

11. Find the equation of the line in point-slope form:

Through the points (2, -3) and (-3, -6)

Point-slope form: _____

12. Find the equation of the line in point-slope form:

Given the points

x	1	-3	-7	-11
y	-8	-5	-2	1

Point-slope form: _____

13. Convert each equation to standard form:

a. $y = \frac{1}{5}x - 3$

Standard form: _____

b. $y + 2 = -4(x + 3)$

Standard form: _____

14. You are reading a book and you currently have 300 pages left to read. You are able to read 15 pages each hour. Write an equation that represents how many pages (y) you will have left to read after x hours. Use your equation to find how many hours until you have finished reading your book.

15. You have $56 to spend at the county fair. Rides cost $6 each and snacks cost $4 each. Write an equation that represents the number of rides (x) and snacks (y) that you can buy. Use your equation to determine how many snacks you can buy if you go on 6 rides.

Fill in the slopes for each line in the table:

	Line	Slope	Parallel Slope	Perpendicular Slope
16.	Through (-3,2) and (1, -5)			
17.	$y = -2x + 9$			
18.	$x - 5y = 6$			

Find the equation of each line in point-slope form:

19. Through the point (-1, 6)

    Parallel to the line $2x + 7y = 3$

    Point-slope form: _____

20. Through the point (2, -3)

    Perpendicular to the line $y = -6x + 5$

    Point-slope form: _____

21. Determine if the lines are parallel, perpendicular, or neither:

$$y = \frac{1}{4}x - 5 \quad \text{and} \quad 8x + 2y = 10$$

Review:

22. Solve for x

$-5(x-2) = 3(2x-4)$

23. Solve the equation

$a = b(c-x)$ solve for x

24. Solve and graph the solution

$-4(x+3) \geq 16$

25. Solve for x (find all possible solutions)

$|2x-7| = 11$