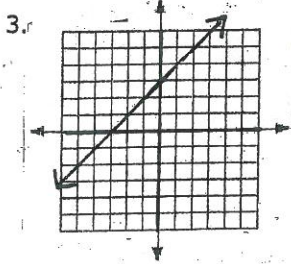
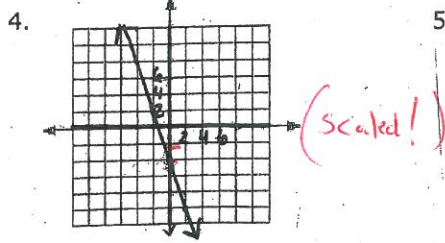


1. a. Write an example of an equation of a line in slope-intercept form _____
 b. The slope of your line: _____
 c. Give one point on your line: _____
2. a. Write an equation in standard form: _____
 b. The x-intercept of your equation: _____
 c. The y-intercept of your equation: _____

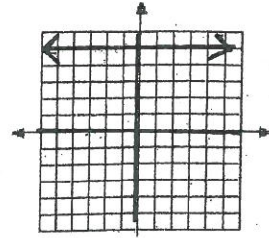
#3-14, Write the equation of the line with the given circumstances:



$y = x + 3$



$y = -3x - 4$



$y = 5$

6. $m = -3$
 through $(-1, 6)$

$y = -3x + b$
 $6 = -3(-1) + b$
 $6 = 3 + b$

$y = -3x + 3$

7. $m = \frac{1}{2}$
 through $(-10, 3)$

$y = \frac{1}{2}x + b$
 $3 = \frac{1}{2}(-10) + b$
 $3 = -5 + b$

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

8. through $(7, 8)$ & $(-7, 6)$

$\frac{8-6}{7-(-7)} = \frac{2}{14} = \frac{1}{7}$

$y = \frac{1}{7}x + b$
 $8 = \frac{1}{7}(7) + b$
 $8 = 1 + b$

$y = \frac{1}{7}x + 7$

9. through $(1, 27)$ & $(-2, 12)$

$\frac{27-12}{1-(-2)} = \frac{15}{3} = 5$

$y = 5x + b$
 $27 = 5(1) + b$

$y = 5x + 22$

10. The y-intercept is -5 and the x-intercept is 4 .

$(0, -5)$
 $(4, 0)$

$y = \frac{5}{4}x - 5$

11. The number of students in a school has been increasing at a constant rate. The table shows the number of students in the school for certain numbers of years since 1995.

Years Since 1995	Number of Students
0	118
5	124
10	130

$y = \frac{6}{5}x + 118$

12. Bailey notices his that 5 hours into a snowstorm there are 17 inches of snow on the ground. It is reported to be snowing at a rate of 2.2 inches per hour. Write an equation relating the snow depth, y , by the hours it has snowed, x .

$m = 2.2$
 $(5, 17)$

$y = 2.2x + 6$

↑ (use the equations) ↑

13. Payton is knitting a scarf for a Xmas gift. The amount of hours she knits and the number of rows she finishes change at a constant rate (that means linear...right?) After 2 hours she has 38 rows knitted. After 4.5 hours she has 52 rows. Write an equation relating knitted rows (y) to hours (x).

$(2, 38)$
 $(4.5, 52)$

$\frac{52-38}{4.5-2} = \frac{14}{2.5} = 5.6$

$38 = 11.2 + b$ $38 = 11.2 + b$

$y = 5.6x + 26.8$