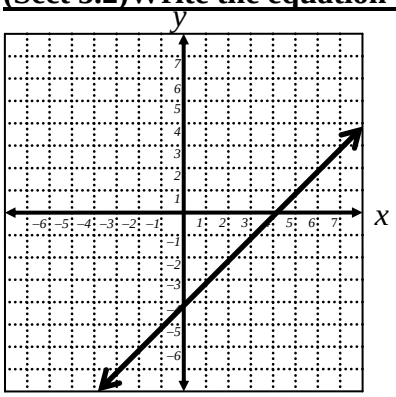
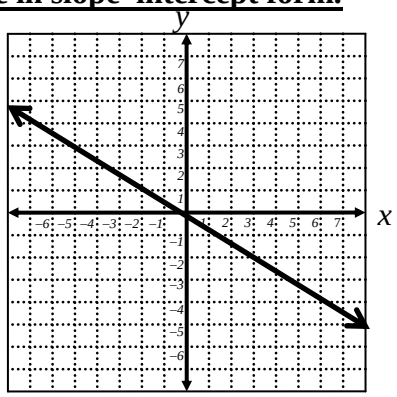
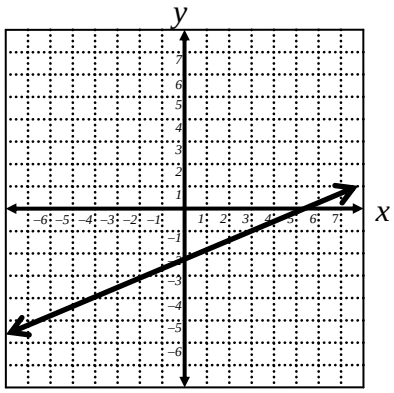
Algebra I Review Sheet Rev 2012 Mathematician: _____

Unit 3–1: Graphing Linear Functions Date: _____ Per: _____

(Sect 5.2)Write the equation of the line in slope–intercept form.







1) Equation: _____ 2) Equation: _____ 3) Equation: _____

(Sect 5.2) Write the equation of the line for the given tables in slope–intercept form.

x	*y*
2	3
4	0
6	–3
8	–6

x	*y*
–2	–14
–1	–9
0	–4
1	1

x	*y*
–15	14
–5	6
5	2
15	–10

4) Equation: _____ 5) Equation: _____ 6) Equation: _____

(Sect 5.2) Write the equation of the line in slope–intercept form given information.

7) Slope is 5 and *y*–intercept is (0, –7)	8) Slope is 2/5 and *y*–intercept is (0, –2)	9) Slope is –1/2 and *y*–intercept is (0, 0)
10) Slope is 3 and point is at (–2, –8)	11) Slope is –4 and the point is at (1, 1)	12) Slope is at –6 and the point is at (–1, 3)
13) Slope is at zero and through the point of (2, 4)	14) Slope is undefined and through the point of (–1, –5)	15) Passes through point (–3, 2) and (6, –1)

(Sect 5.5) Write the equation of the line passing through the two given points.

16) (2, –5) and (–1, 1)

17) (–1, 7) and (5, –3)

18) (1, –2) and (–4, –2)

19) (–2, 1) and (–2, –4)

(Sect 5.5) Application.

20) Paul opens a savings account. At the end of each month, Paul is going to deposit more money into this account. After 3 months he has a total of $800 and after 7 months he has a total of $1,400.

a) If Paul deposits the same amount each time, write a linear equation (in slope–intercept form) that can represent the total amount of money he has after x months.

b) Describe what the slope means. Describe what the y–intercept means.

c) How much money will Paul have after 5 months?

d) After how many months will Paul have more than $2,000?

(Sect 5.6) Determine whether the lines are parallel, perpendicular, or neither.

21) $\begin{cases} 3x + 2y = 1 \\ 6x + 4y = 9 \end{cases}$

22) $\begin{cases} y = \frac{1}{4}x + 9 \\ y = 4x - 9 \end{cases}$

23) $\begin{cases} \frac{1}{8}x + y = 5 \\ -8x + y = 2 \end{cases}$

(Sect 5.6) Write an equation of the line with the given information.

24) Parallel to $y = \frac{2}{3}x - 1$ and passing through the point (6, 2)

25) Parallel to $y = 1$ and passing through the point (4, –2)

26) Perpendicular to $y = \frac{3}{4}x - 1$ and passing through the point (3, –1)

27) Perpendicular to $x = -1$ and passing through the point (1, 5)