Honors Algebra 2
Review 2.5 & 2.8

Name: Key
Period: _____ Date: _____

Vocabulary: Write the correct term beside each definition.

prediction eqn. 1. The equation for a line of best fit

neg. correlation 2. When a scatter plot resembles a line which falls from left to right

bivariate data 3. A set of data which contains two variables

line of fit 4. A line which closely approximates the scatter plot for a set of data

scatter plot 5. A set of bivariate data graphed as ordered pairs on a coordinate plane

pos. correlation 6. When a scatter plot resembles a line which rises from left to right

regression line 7. A line of best-fit which is calculated mathematically so that the distance of all data points to the line of fit are minimized.

correlation coefficient 8. A measure of how well data is modeled by a line of best fit

2.5 Scatter Plots & Lines of Regression

Use your calculator to make a scatter plot of the data in the table below.

Age	18	26	39	48	53	58
Days	16	12	9	5	6	2

$y = -.32x + 21.1$ 9. Record the equation of the least squares line of best fit.

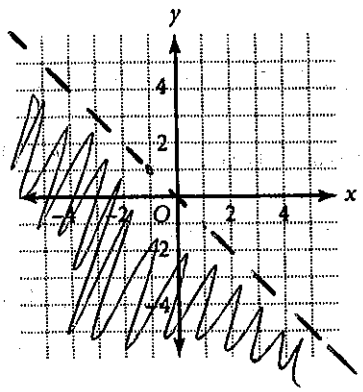
$-.98$ 10. Record the correlation coefficient.

very strong neg. 11. Give a verbal description of the correlation.

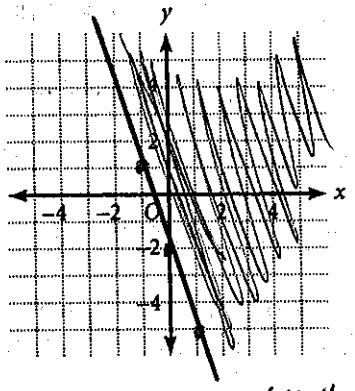
7 days (6.86) 12. Use your answers above to predict the # of sick days that would likely be taken by a 45 year-old employee at this retail store.

Graph each linear inequality.

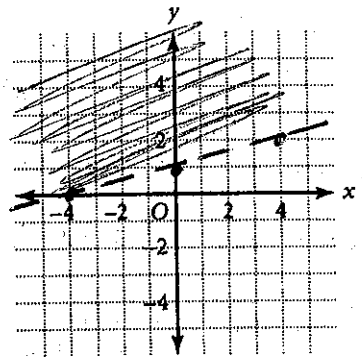
1. $y < -x$



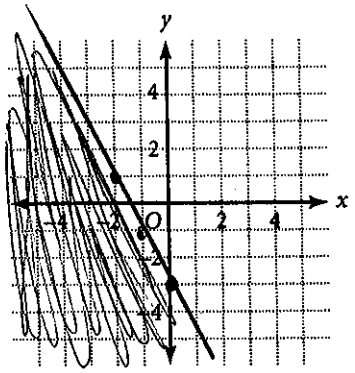
2. $y \geq -3x - 2$



3. $y > \frac{1}{4}x + 1$



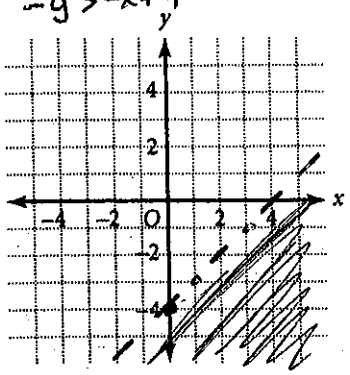
4. $2x + y \leq -3$



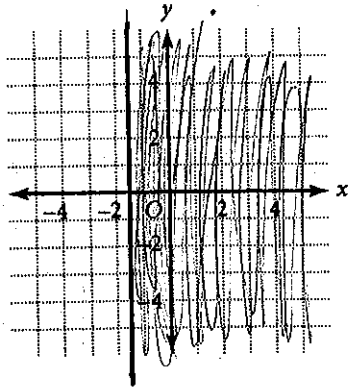
5. $x - y > 4$

$-y > -x + 4$

$y < x - 4$



6. $x \geq -1.5$



7. Sheila earns a basic wage of \$8 per hour. Under certain conditions, she is paid \$12 per hour. The most that she can earn in one week is \$400.

   a. Write an inequality that describes her total weekly wages for x hours at \$8 per hour and for y hours at \$12 per hour.

   $8x + 12y \leq 400$

   b. Graph the inequality on the grid at right.

   c. What is the maximum number of hours that Sheila can work for \$8 per hour? for \$12 per hour?

   50 hrs ; $33\frac{1}{3}$ hrs