Algebra 2
Review for Ch.2 test (Tues.)

State the domain and range of each relation. Then determine whether each relation is a *function*. If it is a function, determine if it is *one-to-one*,

(Lesson 2-1)

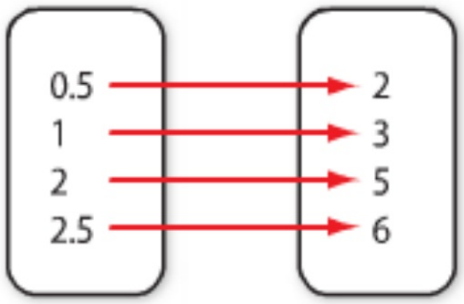
1.

x	y
−2	4
−1	1
2	4
2	6

no funct.

D: −2, −1, 2 R: 1, 4, 6

2.



y-i (0, -9) xi (3, 0)

Find the x-intercept and y-intercept of the graph of each equation. Then graph the equation using the intercepts. (Lesson 2-2)

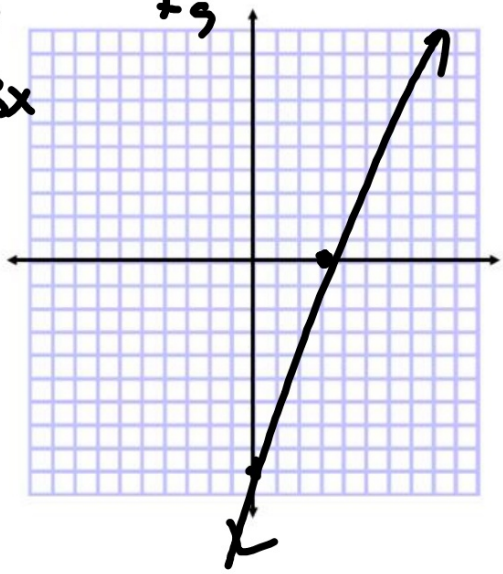
(0, 5) (-2, 0)

3. $y = 3x - 9$

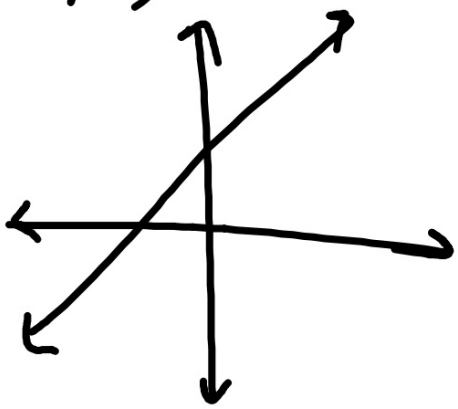
$0 = 3x - 9$

$+9 \quad +9$

$9 = 3x$



4. $2y - 5x = 10$



7. **REPAIR** An auto mechanic charges an initial fee of $25 plus an hourly fee of $35. (Lesson 2-2)

   a. Write an equation to represent the situation. $y = 35x + 25$

   b. How much did it cost Stacy if the mechanic fixed her car in 3.5 hours?

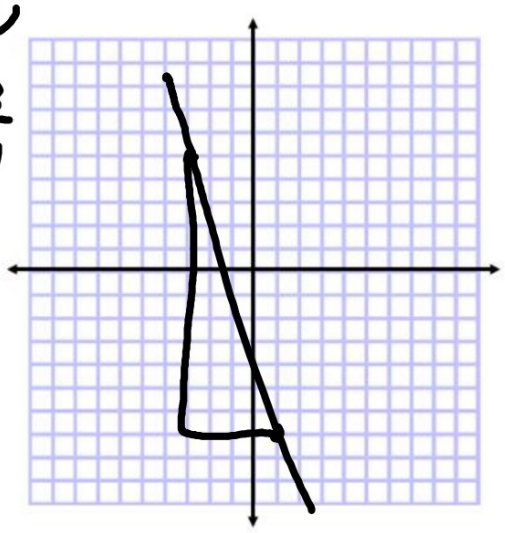
$147.50 $165

(Does she have to pay for the entire hour?)

Find the slope of the line that passes through each pair of points. (Lesson 2-3)

8. $(1, -7), (-3, 5)$

$$-\frac{12}{4} = -3 = -\frac{3}{1}$$



Write an equation of the line passing through each pair of points. (Lesson 2-4)

12. $(-3, -14), (1, -2)$

$\frac{12}{4} = 3$

$m = 3$

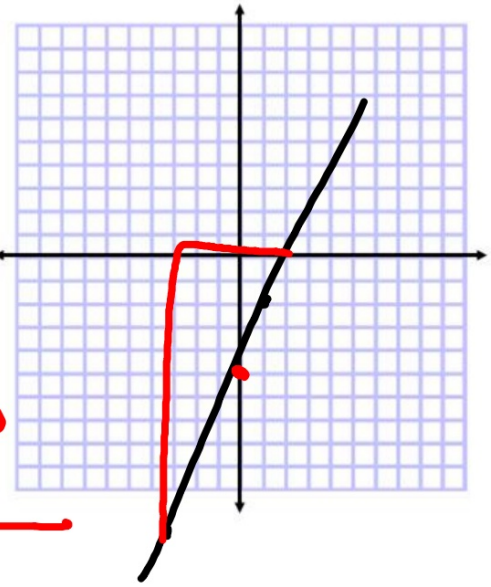
$y = mx + B$

$-2 = 3(1) + B$

$-2 = 3 + B$

$-3 \quad -3$

$-5 = B$

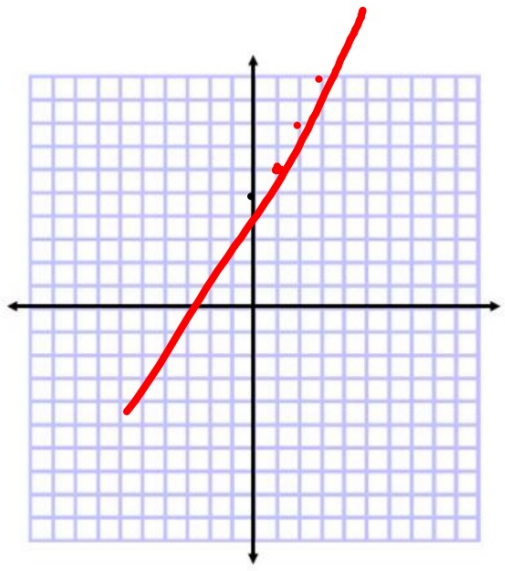


$y = 3x - 5$

Write the equation of a line parallel to $y = 2x + 3$ passing through (1,7).

$m = 2$

$y = 2x + 5$



$y = mx + B$

$7 = 2 \cdot 1 + B$

$7 = 2 + B$

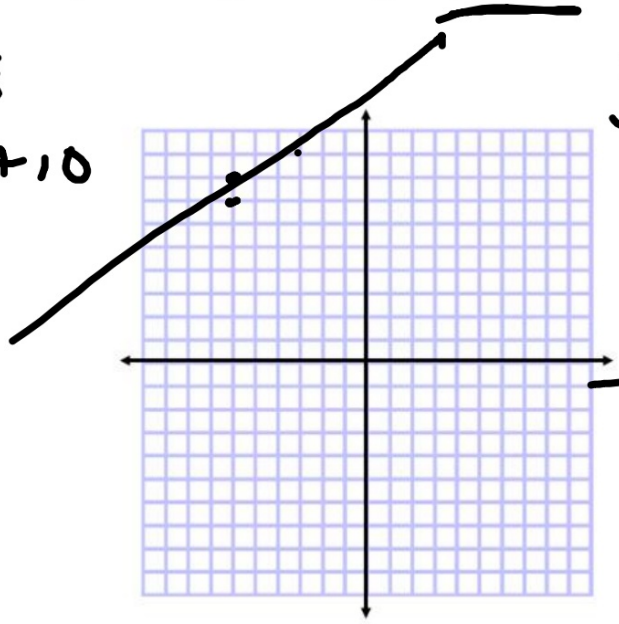
$-2 \quad -2$

$B = 5$

Write the equation of a line perpendicular to
y = -3x + 2 passing through (-6, 8)

$m = \frac{1}{3}$

$y = \frac{1}{3}x + 10$



$y = \frac{1}{3}x + B$

$8 = \frac{1}{3} \cdot -6 + B$

$8 = -2 + B$

$+2 \quad +2$

$10 = B$

( ) ( )

2-5 Scatter Plots and Lines of Regression

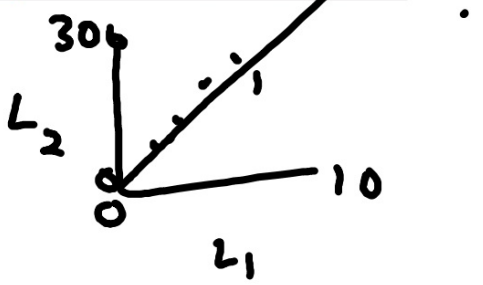
Make a scatter plot and a line of fit and describe the correlation for each set of data. Then, use two ordered pairs to write a prediction equation.

42. **HEATING** The table shows the monthly heating cost for a large home.

Month	Sep	Oct	Nov	Dec	Jan	Feb
Bill ($)	72	114	164	198	224	185

L_1 1 2 3 4 5 6 ? ?

L_2



$y = 26.54x + 66.6$

$r = 0.88$

PT p. 127 1-20 due before

SGR p. 125 44-60e due Tues