

September 29, 2011

Warm-Up: 7pts

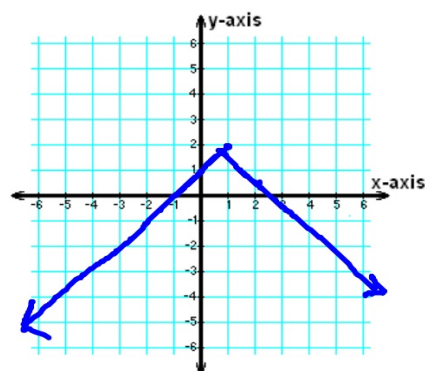
Give the vertex of each:

2. $y = |2x + 4| - 3$
 $(-\frac{4}{2}, -3)$ $(-2, -3)$

2. $y = -|\frac{1}{2}x - 3| + 5$
 $\frac{3}{\frac{1}{2}} = 6$
 $(6, 5)$

Graph: 3

3. $y = -|x - 1| + 2$



Get out your homework:

38pts

Page 104 #10-40 even

Questions?

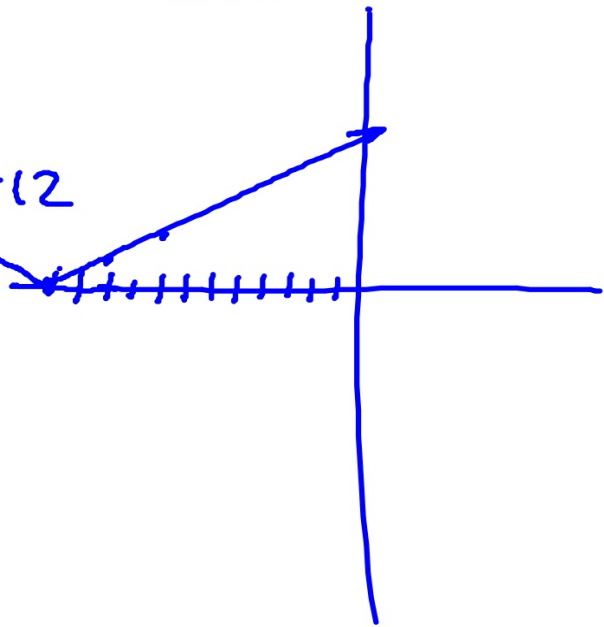
$$40) y = \left| \frac{1}{2}x + 6 \right|$$

Vertex = $\left(-12, 0 \right)$

$\frac{-6}{\frac{1}{2}} = -12$

4pts

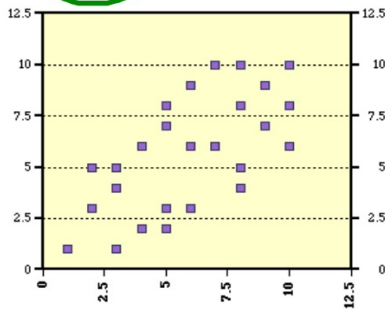
x-value
y-value
up/down
slope



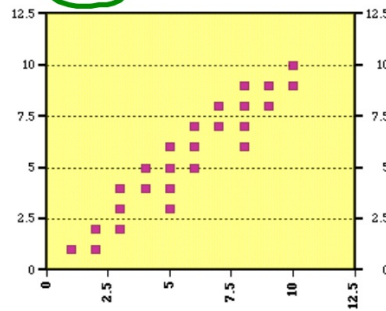
9/29 - Line of Best Fit

Correlation?

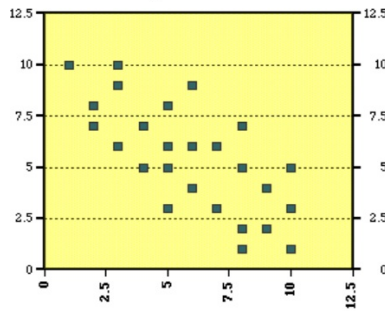
Scattered
Low Positive Correlation



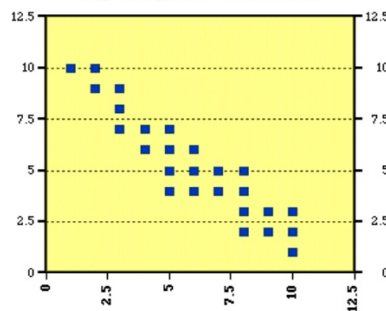
tighter
High Positive Correlation



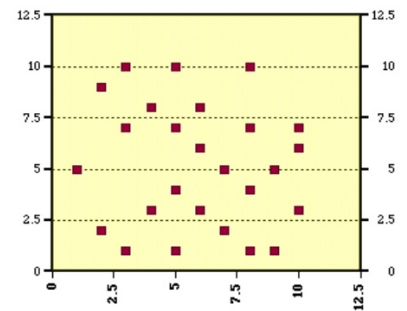
Low Negative Correlation



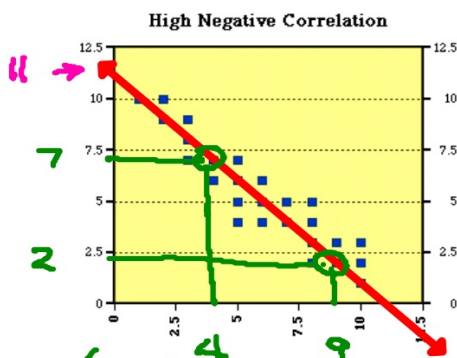
High Negative Correlation



No Correlation



Create a Line of Best Fit for:



$$(4, 7) \quad (9, 2)$$

$$m = \frac{7-2}{4-9}$$
$$= \frac{5}{-5}$$
$$= -1$$

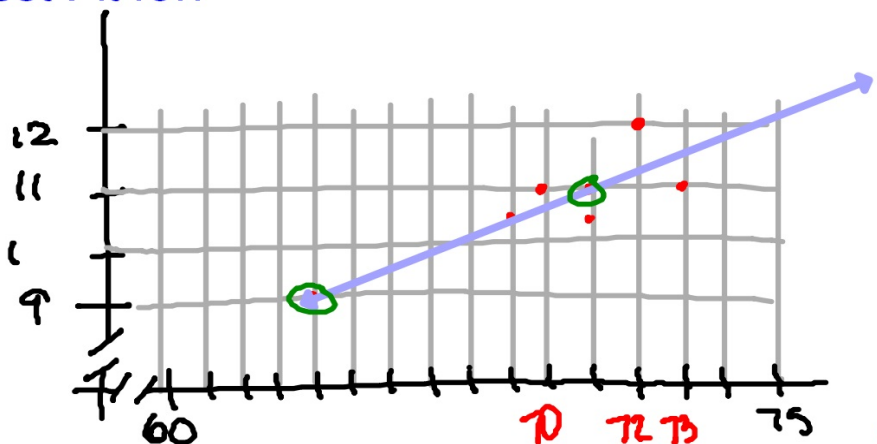
$$y - y_1 = m(x - x_1) \text{ form to get the equation}$$
$$y - 7 = -1(x - 4)$$
$$y - 7 = -x + 4$$

$$y = -x + 11$$

- ① Draw a straight line "in the middle"
- ② Choose 2 pts on the line.
- ③ Find the slope using the 2 pts.
- ④ Use point-slope or slope-int form to get the equation
- ⑤ Double Check!

Create a Line of Best Fit for:

height (inches)	shoe size
72	12
70	11
71	11
73	11
70	11
71	10½
69	10½
64	9
73	11
x	y



$$m = \frac{9 - 11}{64 - 71}$$

$$= \frac{-2}{-7}$$

$$= \frac{2}{7}$$

$$y - y_1 = m(x - x_1)$$

$$y - 9 = \frac{2}{7}(x - 64)$$

$$y - 9 = \frac{2}{7}x - \frac{128}{7}$$

$$+ 9$$

$$y = \frac{2}{7}x - \frac{65}{7}$$

Homework:

page 111 #5-8, 13, 14, 27-30



**Write an equation for the
line of best fit for #27-30**

Due: *Friday*