BE-1B WEDNESDAY 9-13-06

AHSGE WORKBOOKS

PAGE	PROBLEMS
48	8
54	3
55	5
56	6, 7, 8
57	2
65	9

HW Review Pg 285
#48, 52, 54, 55, 57 → 62

Point-Slope Form

Best if you know a point (x, y) and a slope (m) and you just want a linear equation. From this form you can go to any of the others (standard, slope-int) very easily.

$$\boxed{y - y_1 = m(x - x_1)}$$

where (x_1, y_1) is a known point on the line.

Ex) $m = 5$ $(4, 6)$

$$\boxed{y - 6 = 5(x - 4)}$$

Ex) $m = -2$ $(-3, 4)$

$$\boxed{y - 4 = -2(x + 3)}$$

Parallel & Perpendicular Lines

↓
Slope are the same
$m_{\parallel}$

Ex) Find EOL through $(5,-2)$ and $\parallel$ to $y=2x+7$

$m_{\parallel}=2$

$y=mx+b$

$-2=2\cdot 5+b$

$-2=10+b$

$-10 \quad -10$

$-12=b$

$\boxed{y=2x-12}$

↓
Slopes are Negative Reciprocals
$m_{\perp}$

Ex) Find EOL through $(5,-2)$ and $\perp$ to $y=2x+7$

$m_{\perp}=-\frac{1}{2}$

$y=mx+b$

$-2=-\frac{1}{2}\cdot 5+b$

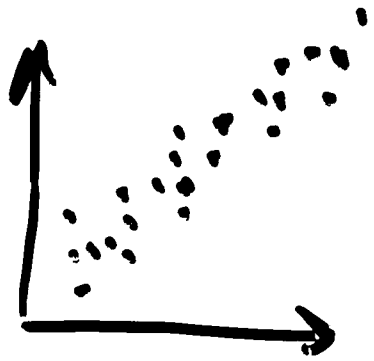
$-2=-\frac{5}{2}+b$

$-\frac{4}{2}+\frac{5}{2}=b$

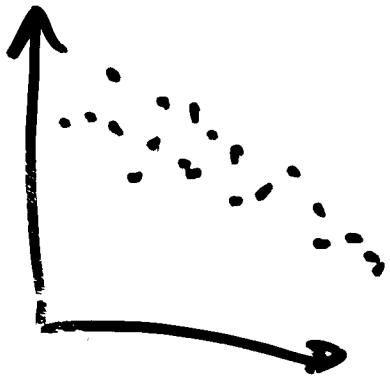
$\frac{1}{2}=b$

$\boxed{y=-\frac{1}{2}x+\frac{1}{2}}$

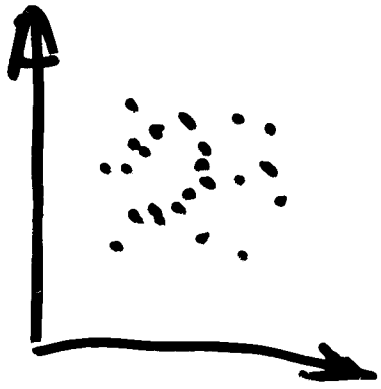
Scatter Plots ⇒ graph some possible RELATION



POSITIVE CORRELATION



NEGATIVE CORRELATION



NO CORRELATION

Page 313 Practice Test (Ch. 5)

#1, 2, 4, 5, 6, 8, 9, 10, 15, 16, 17, 19, 20.