Algebra I   Get Graph Paper and a protractor.

A 295-295: 1, 2, 15, 19, 20, 21, 25, 28, 39-51 W

① Slope-intercept form; the slope; the y-intercept

② Standard form: $2x + 3y = -6$ ← Ex.

⑮ $5x + y = 2$

⑲ $3x + 8y < 0$

⑳ $\begin{cases} -8x + 2y = 1 \text{ on} \\ 8x - 2y = -1 \end{cases}$

㉑ $2x - y = -19$

㉕ $5x - y = 17$

㉘ $x - 2y = 21$

㊴ $y = -2$

㊵ $x = -3$

㊶ $x = 4$

㊷ $y = 0$

㊸ $x = -3\frac{1}{2}$

㊹ $y = 2\frac{1}{2}$

㊺ $x = 9$

㊻ $x + y = 9$

㊼ $y = 10$

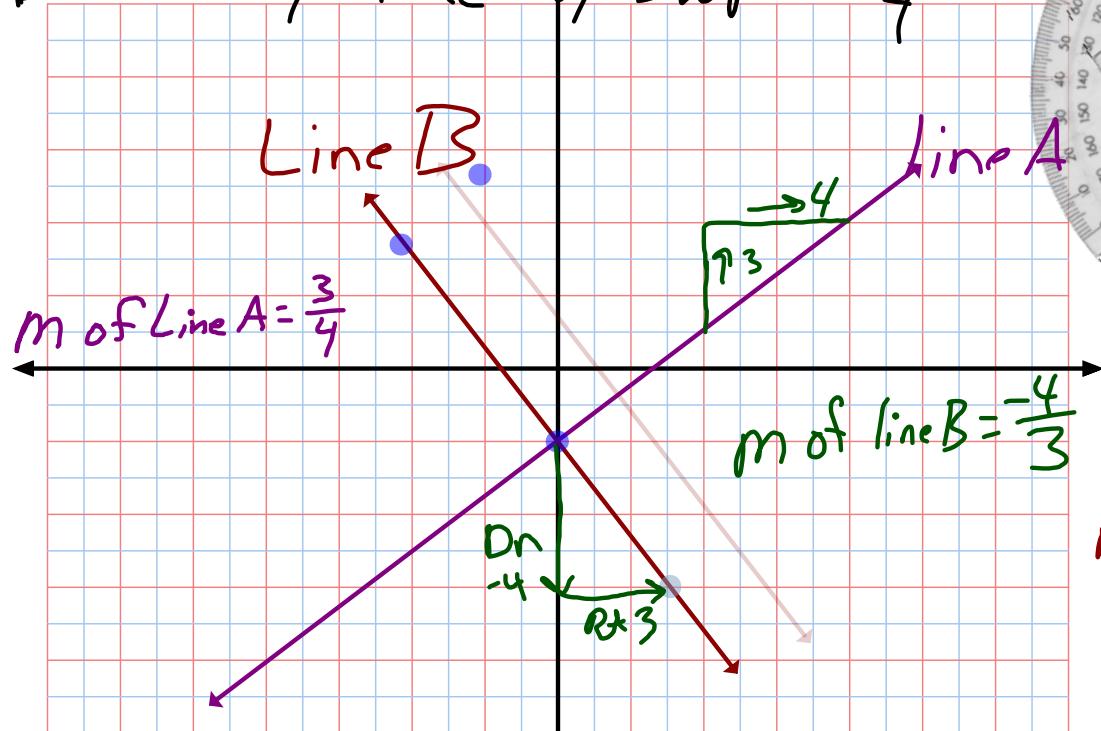㊽ $x + y = 10$

㊾ $-x + y = 4$

㊿ $y = 1$

51 $x + y = 7$

<u>Perpendicular lines</u>: 2 lines in the Same Plane that intersect at a Right or 90° angle.

Draw any line w/ Slope = $\frac{3}{4}$

Line B.

Line A

m of Line A = $\frac{3}{4}$

→4

↑3

m of line B = $\frac{-4}{3}$

Dn
-4

Rt 3

Perpendicular Slopes
are opposite Recip.

⊥ => Perpendicular

Line A ⊥ Line B

Are $y = \boxed{3}x + 2$ &

$y = \boxed{-3}x - 1 \quad \perp$?

To find out... Multiply the Slopes to see if they equal (-1).

$3 \cdot -3 = -9$ ... they are $\underline{\underline{Not}} \perp$

$y = \boxed{\frac{3}{2}}x + 1$ & $y = \boxed{\frac{-2}{3}}x + 1$

$\frac{3^1}{2_1} \cdot \frac{-2^1}{3_1} = -1 \underline{\underline{\quad}}$ they are $\underline{\underline{\perp}}$.

Write in S-I form.
the equation of the line
passing through $(2,5) + (4,4)$
$\underset{(x_1,y_1)}{\qquad} \underset{(x_2,y_2)}{\qquad}$

$m = slope = \dfrac{rise}{run} = \dfrac{change\ in\ y}{change\ in\ x} = \dfrac{y_2 - y_1}{x_2 - x_1}$

2 Pts → Slope

Slope + 1Pt → P.S.F. → S.I.F.

$m = \dfrac{4-5}{4-2} = \dfrac{-1}{2}$

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

$y - 4 = \dfrac{-1}{2}(x - 4)$

$y - 4 = \dfrac{-1}{2}x + 2$
$\underline{+4 \qquad +4}$
$y = \dfrac{-1}{2}x + 6$

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

$y - 5 = \dfrac{-1}{2}(x - 2)$

$y - 5 = \dfrac{-1}{2}x + 1$
$\underline{+5 \qquad\quad +5}$
$y = \dfrac{-1}{2}x + 6$

Is this ⊥ to $y = 2x + 1$?

$\dfrac{-1}{2} \cdot \dfrac{2}{1} = -1$ ← Yes!

O.T.L. ⑥ Wk. st. 5.3 & 5.4. Due w/ Test Tomorrow

① Put the Blue box on Page 306 into notes.

② Pg. 309-311: 1,2,11,14,16,18,19,20,23-31 (o), 40-45 (a).

③ Have yesterday's O.T.L. ready to be graded. (tomorrow)

④ Chapter 5 Test Friday!!!

O.T.L.

Ready for Review Tomorrow at 7:00am

Pg 317
① 1, 7, 14, 20, 23, 26 Due w/ Test