Algebra I Get Graph Paper and a protractor.

p. 294-295: 1, 2, 15, 19, 20, 24, 25, 28, 39-51 (ω)

(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) $-18x+2y=1$ or $18x-2y=-1$

(21) $2x-y=-19$

(23) $5x-y=17$

(28) $x-2y=21$

(39) $y=-2$

(40) $x=-3$

(41) $x=4$

(42) $y=0$

(43) $x=-3\frac{1}{2}$

(44) $y=1\frac{1}{2}$

(45) $x=9$

(46) $x+y=9$

(47) $y=10$

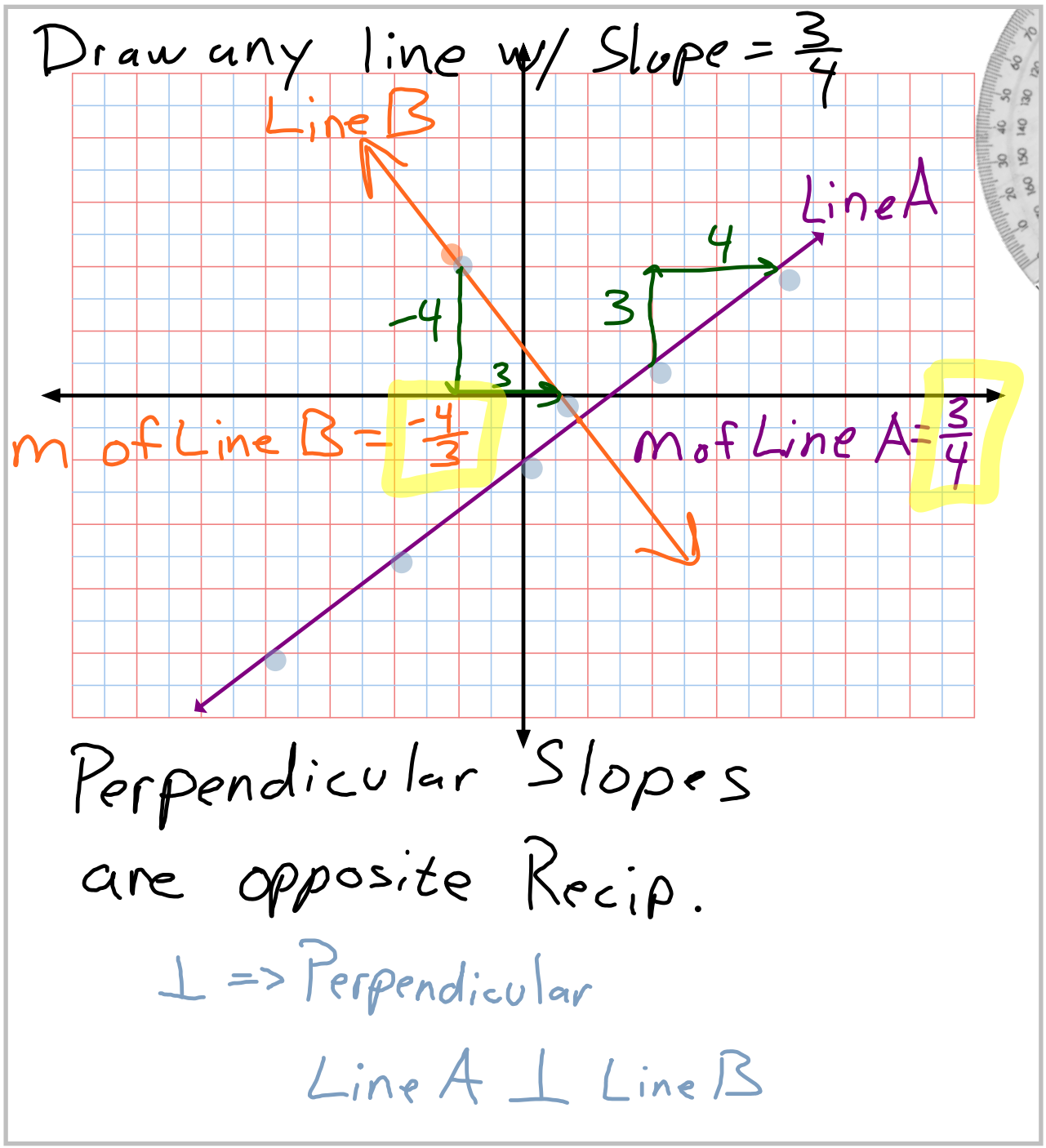
(48) $x+y=10$

(49) $-x+y=4$

(50) $y=1$

(51) $x+y=7$

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


Draw any line w/ Slope = 3/4
Line B
Line A
-4
3
3
4
m of Line B = -4/3
m of Line A = 3/4
Perpendicular Slopes
are opposite Recip.
⊥ => Perpendicular
Line A ⊥ Line B

Are $y = 3x+2$ & $y = -3x-1$ $\perp$?

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

$3 \cdot -3 = -9 \neq -1$

So... they are NOT $\perp$!

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

$\frac{3}{2} \cdot \frac{-2}{3} = \frac{-1}{1} = -1$

So... yes they ARE $\perp$!

Write in S-I form.
the equation of the line
passing through $(2,5)$ & $(4,4)$
(x_1, y_1) (x_2, y_2)

*Process
2 Pts → Slope

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

Slope & 1 Pt → P.S.F. → S.I.F.

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

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

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

$y - 5 = -\frac{1}{2}x + 1$

$+5 \quad +5$

$\boxed{y = -\frac{1}{2}x + 6}$

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

$y - 4 = -\frac{1}{2}x + 2$

$+4 \quad +4$

$\boxed{y = -\frac{1}{2}x + 6}$

Is this ⊥ to $y = 2x + 1$?

$-\frac{1}{2} \cdot 2 = -\frac{1}{1} = -1$

Yes ... these ARE ⊥!

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O.T.L. ⑥ Wk.st. 5.3 & 5.4. Due Today

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!!!

Done in Class

O.T.L.

Ready for Review Tomorrow at 7:00 AM

Pg 317

① 1, 7, 14, 20, 23, 26 } Done!