

Pg. 87 12 c)

Line: $2x + 3y = 6 \rightarrow y = mx + b$

pt. $(7, 6)$

$$3y = -2x + 6$$

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

$$m_{\text{reciprocal}} = \frac{3}{2}$$

② $m_{\text{reciprocal}} = 1.5$

① $m = -\frac{2}{3}$

③ Equation of Perp. Line

$$m = 1.5$$

pt. $(7, 6)$

$$y = mx + b$$

$$6 = 1.5(7) + b$$

$$6 = 10.5 + b$$

$$6 - 10.5 = b$$

$$-4.5 = b$$

$$y = 1.5x - 4.5$$

④ P.O.I.

$$\textcircled{1} 2x + 3y = 6$$

$$\textcircled{2} y = 1.5x - 4.5$$

sub $\textcircled{2}$ into $\textcircled{1}$

$$2x + 3y = 6$$

$$2x + 3(1.5x - 4.5) = 6$$

$$2x + 4.5x - 13.5 = 6$$

$$6.5x = 6 + 13.5$$

$$6.5x = 19.5$$

$$x = 3$$

$$y = 1.5x - 4.5$$

P.O.I. $(3, 0)$

$$y = 1.5(3) - 4.5$$

$$y = 4.5 - 4.5$$

$$y = 0$$

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

⑤ dist. $(3, 0) + (7, 6)$

$$d = \sqrt{52}$$

$$d = 7.2$$

$$d = \sqrt{(7-3)^2 + (6-0)^2}$$

$$d = \sqrt{4^2 + 6^2}$$

$$d = \sqrt{16 + 36}$$

Pg 87 #12 b

Read 88-91

Get note for tomorrow
off the website tonight.