

MTH 112

MONDAY CLASS NOTES

9-24-12

⑫
PRACTICE
EXAM
7+8

Point-Slope Form

Through

$(2, 1), (-4, 6)$
↖ x y ↗

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

$$m = \frac{y_2 - y_1}{x_2 - x_1} \Rightarrow m = \frac{y - y_1}{x - x_1}$$

$$m = \frac{6 - 1}{-4 - 2} = \frac{5}{-6} = \frac{-5}{6} = m$$

$$y - 1 = -\frac{5}{6}(x - 2)$$

$$y - 1 = -\frac{5}{6}x + \frac{5}{3}$$

$$y = -\frac{5}{6}x + \frac{8}{3}$$

unique

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

NOT
unique

$$y - 6 = -\frac{5}{6}x - \frac{10}{3}$$

$$y = -\frac{5}{6}x - \frac{10}{3} + \frac{18}{3}$$

$$y = -\frac{5}{6}x + \frac{8}{3}$$

unique

$$\textcircled{13} \quad y = -\frac{5}{6}x + \frac{8}{3}$$

$$6\left(\frac{5}{6}x + y\right) = \frac{8}{3} \cdot 6$$

$$\boxed{5x + 6y = 16}$$

$$Ax + By = C$$

$$A > 0$$

A, B, C NOT fractions

$$(19) \quad |2+x| \leq 1$$

$$\begin{array}{l} 2+x \leq 1 \\ -2 \quad -2 \\ \hline x \leq -1 \end{array}$$

$$\begin{array}{l} -(2+x) \leq 1 \\ 2+x \geq -1 \\ \hline x \geq -3 \end{array}$$

