# Lesson 8: Finding the Point of Intersection between Two Lines by Graphing 

Warm-Up: Mr. Slope Guy!!!


## Answer the following:

Determine the equation of the line given the following information:

1. Parallel and Point: it is parallel to $y=\frac{3}{5} x+10$
2. Perpendicular and Point: It is perpendicular to $y=-3 x-4$ and has the same $x$-intercept as $2 x-6 y=18$

## 3. Finding the Point of Intersection between Two Lines by Graphing

## Example 1:

Determine the point of intersection between the following two lines by graphing them. Check your answer.
$y=x+1$
$y=4 x-5$


## Example 2:

Do the following lines intersect at the point (1, -1)? If not, determine the point of intersection.

$$
\begin{aligned}
& y=-2 x-3 \\
& y=x-6
\end{aligned}
$$



## Example 3:

Where will the following lines intersect?
$y=\frac{3}{2} x-4$
$y=-0.5 x$


Homework: p. 157 \#1-4, 5 (by graphing), 6

