pg. 120 #2-8 even (graph by hand on graph paper to determine the point of intersection), #13-23 odd (give # of solutions)

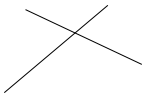
Solve each system by graphing. Check your answers.

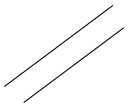
1. $\begin{cases} y = x - 2 \\ y = -2x + 7 \end{cases}$ **2.** $\begin{cases} y = -x + 3 \\ y = \frac{3}{2}x - 2 \end{cases}$ **3.** $\begin{cases} 2x + 4y = 12 \\ x + y = 2 \end{cases}$

4. $\begin{cases} x = -3 \\ y = 5 \end{cases}$ **5.** $\begin{cases} 2x - 2y = 4 \\ y - x = 6 \end{cases}$ **6.** $\begin{cases} 3x + y = 5 \\ x - y = 7 \end{cases}$

7. $\begin{cases} -5x + y = -9 \\ x + 3y = 21 \end{cases}$ **8.** $\begin{cases} y = x \\ y - 5x = 0 \end{cases}$ **9.** $\begin{cases} x = 10 \\ x = y - 10 \end{cases}$

Without graphing, determine the number of solutions for the following:

If the lines intersect  then there is ONE solution.

If the lines are parallel  then there are NO solutions.

If the lines exactly the same  then there are INFINITE solutions.

#13-23 odd (give # of solutions only)

13. $\begin{cases} 7x - y = 6 \\ -7x + y = -6 \end{cases}$ **14.** $\begin{cases} -3x + y = 4 \\ x - \frac{1}{3}y = 1 \end{cases}$ **15.** $\begin{cases} 4x + 8y = 12 \\ x + 2y = -3 \end{cases}$

16. $\begin{cases} y = 2x - 1 \\ y = -2x + 5 \end{cases}$ **17.** $\begin{cases} x = 6 \\ x = -2 \end{cases}$ **18.** $\begin{cases} 2y = 5x + 6 \\ -10x + 4y = 8 \end{cases}$

19. $\begin{cases} x - 3y = 2 \\ 4x - 12y = 8 \end{cases}$ **20.** $\begin{cases} x + 4y = 12 \\ 2x - 8y = 4 \end{cases}$ **21.** $\begin{cases} 4x + 8y = -6 \\ 6x + 12y = -9 \end{cases}$

22. $\begin{cases} 4y - 2x = 6 \\ 8y = 4x - 12 \end{cases}$ **23.** $\begin{cases} y - x = 0 \\ y = -x \end{cases}$ **24.** $\begin{cases} 2y - x = 4 \\ \frac{1}{2}x - y = 2 \end{cases}$