

#1-5, Decide how many solutions the system has *and show your work*. (2 pt)

1.
$$\begin{cases} y = 2x - 2 \\ -2x + y = 1 \end{cases}$$

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

3.
$$\begin{cases} x + y = -4 \\ y = -x - 4 \end{cases}$$

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

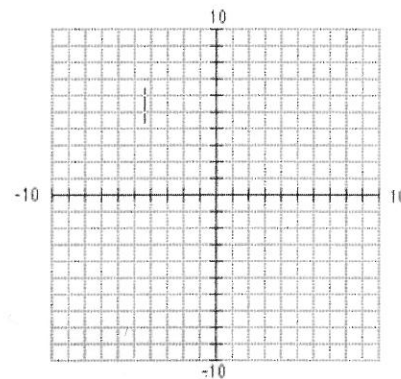
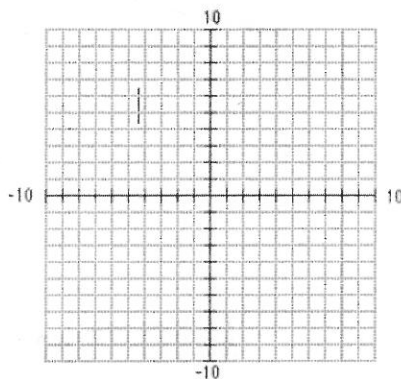
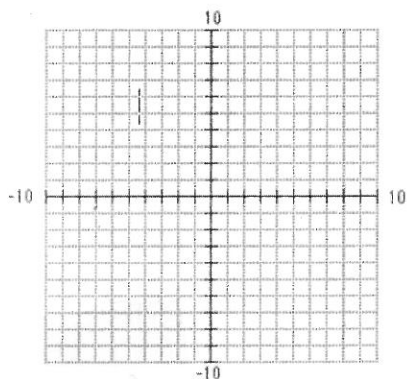
5.
$$\begin{cases} y = 3x - 1 \\ 2x + 5y = 6 \end{cases}$$

#6-11, Graph the inequality or system. (2 pt or 4 pt)

6. $y > 3x + 1$

7. $x + y \leq 2$

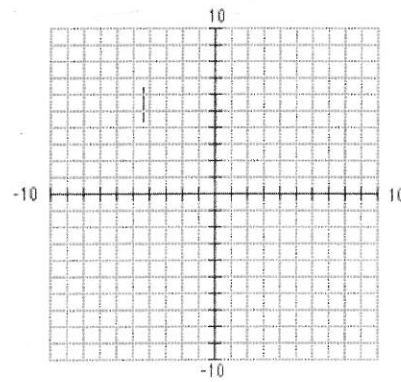
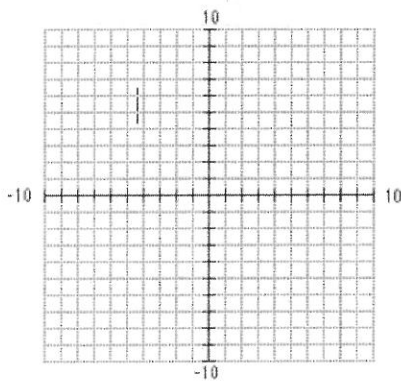
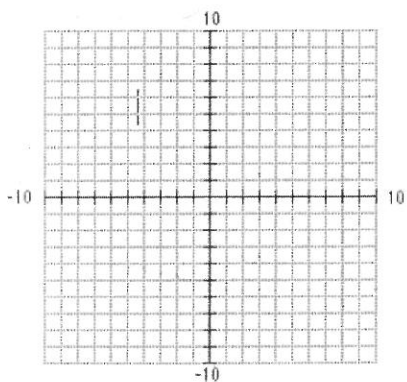
8. $3x - 3y > 0$



9.
$$\begin{cases} y < -3x - 3 \\ y \geq 0 \end{cases}$$

10.
$$\begin{cases} y \geq 3x \\ 3x + y \geq 3 \end{cases}$$

11.
$$\begin{cases} y > 2x + 4 \\ 6x + 2y \geq -2 \end{cases}$$



#12-14, Find the solution(s) to the system. (Using your graphing calc. is a good idea). (2 pt)

12.
$$\begin{cases} y = -7 + x \\ y = x^2 - 7 \end{cases}$$

13.
$$\begin{cases} y + 3x = 0 \\ y - 6 = -3x^2 \end{cases}$$

14.
$$\begin{cases} y - 2x^2 = 1 \\ 2x + y = 3 \end{cases}$$