5.11H

READY, SET, GO! **Name** **Period** **Date**

READY

Topic: Solving systems of linear equations by substitution and elimination.

Solve each system of equations using an algebraic method.

1. $\begin{cases} 3x - y = 1 \\ 3x + 2y = 16 \end{cases}$

2. $\begin{cases} x + 2y = 5 \\ 3x + 5y = 14 \end{cases}$

3. $\begin{cases} 4x + 2y = -8 \\ x - 2y = -7 \end{cases}$

4. $\begin{cases} 2x + 3y = 2 \\ 3x - 4y = -14 \end{cases}$

5. $\begin{cases} x + 2y = 11 \\ x - 4y = 2 \end{cases}$

6. $\begin{cases} 2x + y = 0 \\ 5x + 3y = 1 \end{cases}$

SET

Topic: Row reduction of matrices

7. Create a matrix to match each step in the solving of the system of equations given. Also, write a description of what happened to the equation and the matrix between steps.

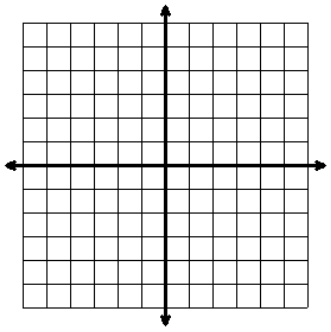
	System of Equations	Description	Matrix
Given System	$\begin{cases} 3x + 2y = 40 \\ x - 7y = -2 \end{cases}$		$\left[\begin{array}{cc\|c} 3 & 2 & 40 \\ 1 & -7 & -2 \end{array}\right]$
	ê	$-3R_2 \rightarrow R_2$	ê
Step 1	$\begin{cases} 3x + 2y = 40 \\ -3x + 21y = 6 \end{cases}$	ê	$\left[\begin{array}{cc\|c} & 2 & 40 \\ -3 & & 6 \end{array}\right]$
	ê		ê
Step 2	$\begin{cases} 3x + 2y = 40 \\ 0x + 23y = 46 \end{cases}$	ê	$\left[\begin{array}{c\|c} 0 & 40 \end{array}\right]$
	ê		ê
Step 3	$\begin{cases} 3x + 2y = 40 \\ 0x + y = 2 \end{cases}$	ê	[|]
	ê		ê
Step 4	$\begin{cases} 3x + 0y = 36 \\ 0x + y = 2 \end{cases}$	ê	[|]
	ê		ê
Step 5	$\begin{cases} x + 0y = 12 \\ 0x + y = 2 \end{cases}$		[|]

GO

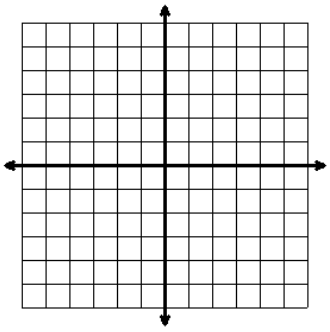
Topic: Solving Systems of Equations by Graphing

Solve each system of equations by graphing.

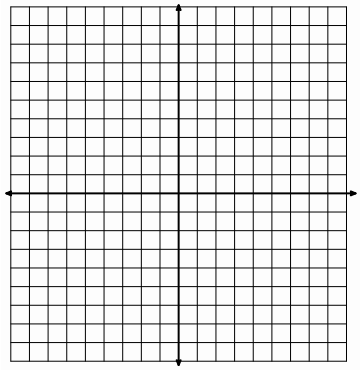
8. $\begin{cases} y = 3x - 3 \\ y = -3x + 3 \end{cases}$



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



10. $\begin{cases} y = -2x + 7 \\ -3x + y = -8 \end{cases}$



11. $\begin{cases} 4x - y = 7 \\ 3x + 2y = 8 \end{cases}$