Ready, Set, Go!

Ready

Topic: Solving Systems 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. $\begin{cases} x + 2y = 11 \\ x - 4y = 2 \end{cases}$

Set

Assume that the matrices below represent linear systems of equations. Practice the strategy you used for reducing a given matrix so that the left portion of the matrix (the 2 rows and first 2 columns of entries) has ones on the diagonal. Write a description of what you did to get from one matrix to another in each step of your sequence of matrices.

4. $\begin{bmatrix} 3 & 2 & -6 \\ 1 & 2 & 2 \end{bmatrix}$

5. $\begin{bmatrix} -3 & 1 & -12 \\ 2 & 3 & -15 \end{bmatrix}$

6. $\begin{bmatrix} 7 & 2 & 24 \\ 8 & 2 & 30 \end{bmatrix}$

7. $\begin{bmatrix} 5 & 1 & 9 \\ 10 & -7 & -18 \end{bmatrix}$

Go

Topic: Solving systems of equations

Solve the following systems of equations with a method of your choice.

8. $\begin{cases} x - y = 11 \\ 2x + y = 19 \end{cases}$

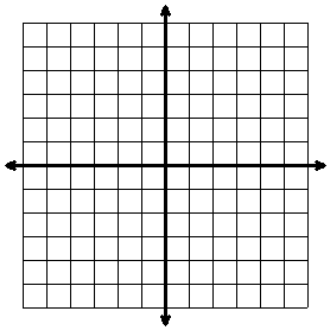
9. $\begin{cases} 8x + y = -16 \\ -3x + y = -5 \end{cases}$

10. $\begin{cases} -4x + 9y = 9 \\ x - 3y = -6 \end{cases}$

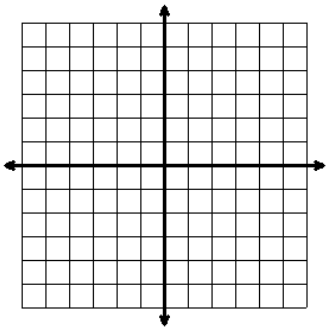
11. $\begin{cases} -7x + y = -19 \\ -2x + 3y = -19 \end{cases}$

Solve each system of equations by graphing.

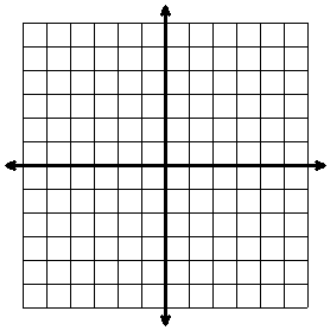
12. $\begin{cases} y = 3x - 3 \\ y = -3x + 9 \end{cases}$



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



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



15. $\begin{cases} 4x - y = 7 \\ -6x + 2y = 8 \end{cases}$