

PROGRESSIONS:
PEER-LED TEAM LEARNING

Module 6: Solving Systems of Linear Equations

Objective

- ❖ To compare three methods for solving a system of two linear equations: graphing, substitution, and elimination.

Module 6A: Post-Lecture

There are three methods for solving a system of two linear equations: graphing, substitution, and elimination. In this activity, solutions will be compared using the three methods and a criterion will be established as to which method is preferable for each system.

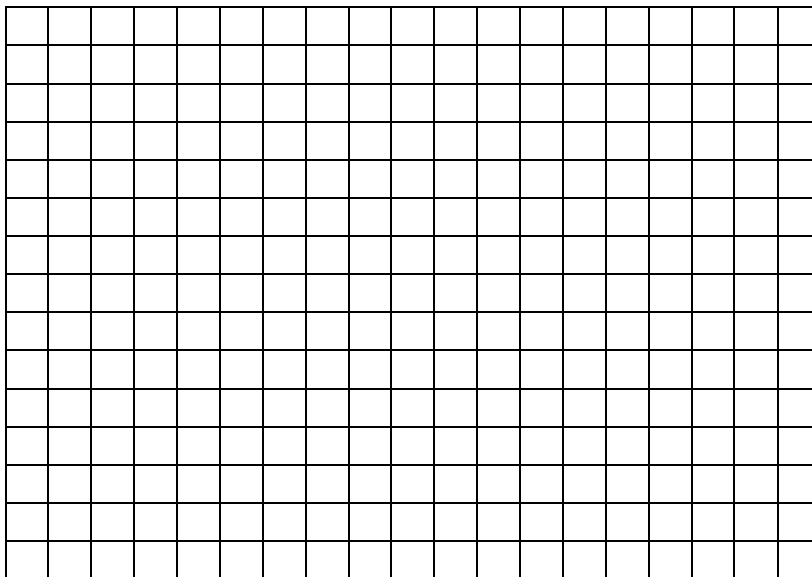
1. Form groups of three people and distribute one system (either System A, System B, or System C) to each group member.
2. Begin by solving the system of equation by graphing. Show your work in a neat manner so the other members in your group can follow the steps.
3. When everyone is done, pass your paper to the group member on the right. Solve the system of equation by the substitution method. Show your work in the space provided.
4. Finally, pass the paper to the group member on the right. Solve the system of equation by the elimination method and show your work in the space provided.

5. Examine the three methods used to solve each system. Determine as a group what is or are the preferred method(s) for each system.

SYSTEM	Preferred Method(s)	Reason(s)
<p style="text-align: center;">A</p> $\begin{cases} x + y = 5 \\ 3x - y = 3 \end{cases}$		
<p style="text-align: center;">B</p> $\begin{cases} x + 4y = 1 \\ 2x - 3y = 13 \end{cases}$		
<p style="text-align: center;">C</p> $\begin{cases} 4x - 3y = 9 \\ 3x + 2y = 11 \end{cases}$		

SYSTEM A $\begin{cases} x + y = 5 \\ 3x - y = 3 \end{cases}$

Method I: By Graphing



Method II: By Substitution

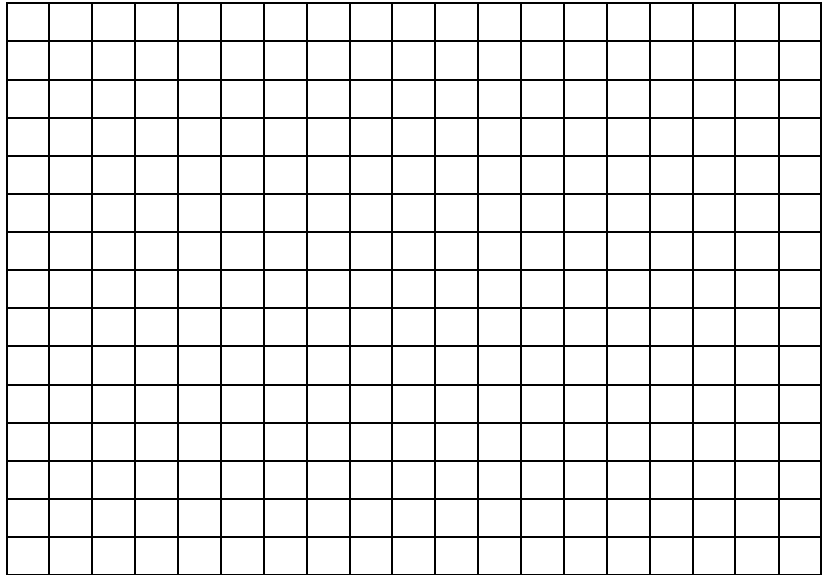
Method III: By Elimination



SYSTEM B

$$\begin{cases} x + 4y = 1 \\ 2x - 3y = 13 \end{cases}$$

Method I: By Graphing



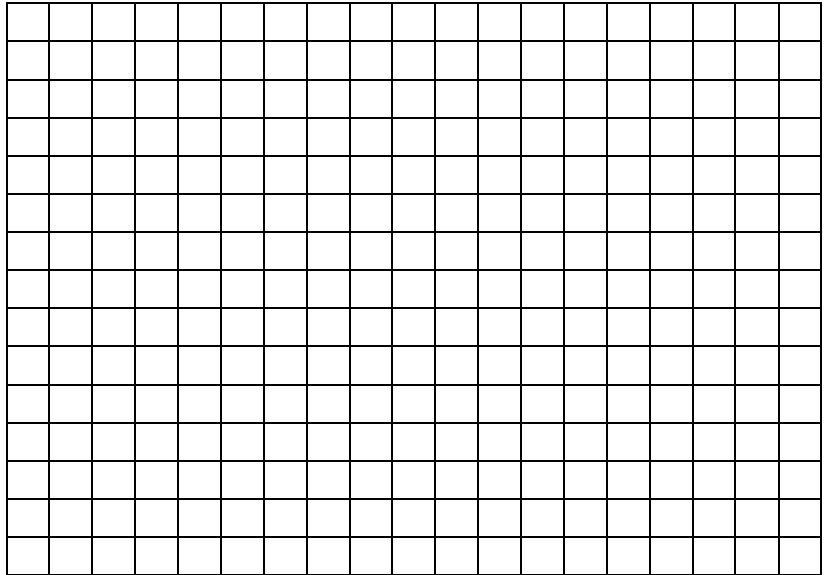
Method II: By Substitution



Method III: By Elimination

SYSTEM C $\begin{cases} 4x - 3y = 9 \\ 3x + 2y = 11 \end{cases}$

Method I: By Graphing



Method II: By Substitution



Method III: By Elimination

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