

Systems Practice

Decisions! Decisions!

You have learned several methods to solve systems of equations. Tell which strategy would be most efficient to solve the following systems. Your choices are: Graphing (on calculator), substitution, & elimination. Explain WHY you would choose this method.

1. $\begin{cases} y = 4x - 5 \\ y = 1.5x + 8 \end{cases}$ Graphing
WHY?

2. $\begin{cases} x + 3y = 4 \\ x = 5y + 7 \end{cases}$ Substitution
WHY?

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

4. $\begin{cases} 4x + 3y = 4 \\ 2x - 5y = 7 \end{cases}$ Elimination
WHY?

Classwork:

Solve by any method. Try to use each method at least once. Do your work on a separate sheet of paper to turn in.

1. Sub!
 $\begin{cases} 7x + 3y = 10 \\ y = -7x - 2 \end{cases}$
 $7x + 3(-7x - 2) = 10$
 $7x - 21x - 6 = 10$
 $\frac{-14x - 6}{-14} = \frac{16}{-14}$
 $x = -\frac{8}{7}$

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

3. $\begin{cases} 5x - 3y = 12 \\ 2x + 1.5y = 3 \end{cases}$

$y = -7\left(-\frac{8}{7}\right) - 2$
 $y = 8 - 2 = 6$

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

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

6. $\begin{cases} 7x + 8y = 25 \\ 9x + 10y = 35 \end{cases}$