

# Warm Up

March 1, 2019

## Comparing Methods to Solving Systems

Systems of equations can be solved by graphing, substitution, or elimination. However, there are situations where one method may be more sophisticated than another. Solve the following systems using the graphing, substitution, or elimination method. **You may only use each method once.**

<b>SYSTEM A</b>	Method of Choice: <input type="checkbox"/> Graphing <input checked="" type="checkbox"/> Substitution <input type="checkbox"/> Elimination
$x - y = -2$ $7x + 2y = -5$	
$\begin{array}{r} x - y = -2 \\ + y \quad + y \\ \hline x = y - 2 \end{array}$	$\begin{array}{l} 7(y - 2) + 2y = -5 \\ 7y - 14 + 2y = -5 \\ 9y - 14 = -5 \\ +14 \quad +14 \\ \hline 9y = 9 \end{array}$
	Solution: $(-1, 1)$

$$\begin{array}{l} x = y - 2 \\ x = -1 \end{array}$$

$$\begin{array}{l} 9y = 9 \\ \frac{9y}{9} = \frac{9}{9} \\ y = 1 \end{array}$$

## Comparing Methods to Solving Systems

Systems of equations can be solved by graphing, substitution, or elimination. However, there are situations where one method may be more sophisticated than another. Solve the following systems using the graphing, substitution, or elimination method. **You may only use each method once.**

<b>SYSTEM B</b>	Method of Choice: <input type="checkbox"/> Graphing <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Elimination
$8x + 5y = -13$ $3x + 4y = 10$	
$4(8x + 5y = -13)$ $5(3x + 4y = 10)$	
	Solution: $(-6, 7)$

$$\begin{array}{r} \leftarrow 32x + 20y = -52 \\ 15x + 20y = 50 \\ \hline 17x = -102 \\ \frac{17}{17} \quad \frac{17}{17} \\ x = -6 \end{array}$$

$$\begin{array}{r} 3(-6) + 4y = 10 \\ -18 + 4y = 10 \\ +18 \quad \quad +18 \\ \hline 4y = 28 \\ \frac{4}{4} \quad \frac{28}{4} \\ y = 7 \end{array}$$



Solve Questions 5-8 by **SUBSTITUTION!**

5 $y = 2x - 11$ $4x + 3y = -13$	6 $x = y + 1$ $5x - 9y = -51$
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7 $7x - 2y = 35$ $x - 4y = 5$	8 $2x + y = 9$ $8x + 4y = 26$
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**SUBSTITUTION**  
**ELIMINATION**  
**APPLICATIONS**

**SYSTEMS OF EQUATIONS**  
**Flip Book**

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**TYPES OF SOLUTIONS**  
**GRAPHING**  
**SUBSTITUTION**  
**ELIMINATION**  
**APPLICATIONS**