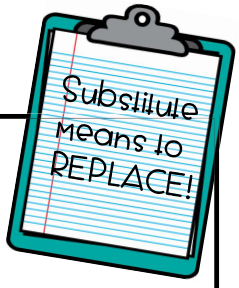
Name:_____ Date:_____Period:_____

NOTES: SYSTEMS OF EQUATIONS

Solve by Substitution



STEPS TO SOLVE BY SUBSTITUTION

1. Solve for _____ variable in _____ equation
2. _____ the expression into the other equation
3. You have now created ONE equation with ONE variable. _____ for the value of that variable.
4. You have now solved for the value of ONE variable. _____ that value into one of the equations to determine the value of the other variable.

Solve each system of equations using the substitution method.

1. $\begin{cases} 3x + 4y = -6 \\ x = y + 5 \end{cases}$

2. $\begin{cases} y = \frac{1}{2}x - 1 \\ x + y = 5 \end{cases}$

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

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

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

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

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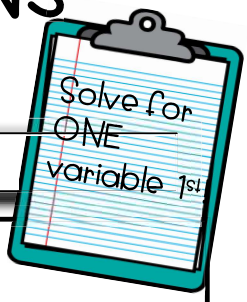
Name:_____ Date:_____Period:_____

A.___ SYSTEMS OF EQUATIONS

Solve by Substitution



Solve each system of equations using the substitution method.

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

2. $\begin{cases} y = 3x \\ 3x + 4y = 45 \end{cases}$

3. $\begin{cases} x = 5y - 2 \\ 4x - 9y = 36 \end{cases}$

4. $\begin{cases} x + 2y = 6 \\ 5x + 5y = 30 \end{cases}$

5. $\begin{cases} 2y = x - 12 \\ x - 2y = -1 \end{cases}$

6. $\begin{cases} y = \frac{1}{3}x + 5 \\ 4x + 6y = 12 \end{cases}$

7. $\begin{cases} 8x + 2y = -2 \\ y + 1 = -4x \end{cases}$

8. $\begin{cases} 3x + 4y - 5 = 9 \\ 6x + 2y = 5x + 4 \end{cases}$