

Solve each system by elimination.

← adding + subtraction method

$$\begin{array}{l} \textcircled{1} \\ 1) \quad 3x + 2y = -9 \\ \textcircled{2} \\ + \quad -6x - 2y = 18 \end{array}$$

$$\begin{array}{r} -3x = 9 \\ \hline -3 \quad -3 \end{array}$$

$$\boxed{x = -3}$$

Substitute in  $\textcircled{1}$

$$\begin{array}{r} 3x + 2y = -9 \\ 3(-3) + 2y = -9 \\ -9 + 2y = -9 \\ \quad +9 \quad +9 \\ \hline 2y = 0 \\ \hline y = 0 \end{array}$$

Check in  $\textcircled{2}$

L.S.

R.S.

$$\begin{array}{r} -6x - 2y \\ -6(-3) - 2(0) \\ 18 - 0 \end{array}$$

18 ← Solution Set  $(-3, 0)$

Solve each system by elimination.

2)  $-4x - 2y = 10$

$+ -3x + 2y = 4$

$$\begin{array}{r} -7x = 14 \\ \hline -7 \quad -7 \end{array}$$

$$x = -2$$

$$\begin{array}{r} -4(-2) - 2y = 10 \\ 8 - 2y = 10 \\ \hline -2y = 2 \end{array}$$

$$\begin{array}{r} -2y = 2 \\ \hline -2 \quad -2 \end{array} \quad y = -1$$

③ check

LS	RS
$-3x + 2y$	4
$-3(-2) + 2(-1)$	
6 - 2	
4	✓

$$6 - 2$$

$$4 \quad \checkmark$$

POI  $(-2, -1)$



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Solve each system by elimination.

$$\begin{array}{l} 3) \ x + 5y = 8 \\ + \ 5x - 5y = 10 \end{array}$$

$$\begin{array}{r} 6x = 18 \\ \hline 6 \quad 6 \end{array}$$

$$\boxed{x = 3}$$

Substitute

$$3 + 5y = 8$$

$$\begin{array}{r} 5y = 5 \\ \hline 5 \end{array}$$

$$\boxed{y = 1}$$

check

L	R
$5x - 5y$	10
$5(3) - 5(1)$	
$15 - 5$	
10	

POI (3, 1)



Solve each system by elimination.

①  
5)  $4x + 6y = -6$

②  $-x + 7y = -7$

$(\times 4) \rightarrow 4x + 6y = -6$   
 $+ \quad -4x + 28y = -28$

$34y = -34$   
 $\frac{34y}{34} = \frac{-34}{34}$

Find  $x$  in ①

$4x + 6y = -6$

$4x + 6(-1) = -6$

$4x - 6 = -6 + 6$

$4x = 0$   
 $\frac{4x}{4} = \frac{0}{4}$   
 $x = 0$

$y = -1$

Check in ②

L.S.

$-x + 7y = -7$   
 $-0 + 7(-1) = -7$   
 $-7 = -7$   
 AB ✓  
 $(0, -1)$

Solve each system by elimination.

7)  $12x + 5y = -26$

$6x + 3y = -12$

$(x-2)$

$$\begin{array}{r} 12x + 5y = -26 \\ -12x - 6y = 24 \\ \hline -1y = -2 \\ \hline y = 2 \end{array}$$

$$y = 2$$