Intermediate Algebra Skill

<u>Solving 2 x 2 Linear System by Addition</u>

Solve the following Linear Systems of Equations by Addition:

1) $\begin{cases} x+3y=7 \\ -x+4y=7 \end{cases}$

2) $\begin{cases} 2x+y=6 \\ x-y=3 \end{cases}$

3) $\begin{cases} 6x-3y=18 \\ 6x+3y=-12 \end{cases}$

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

5) $\begin{cases} 5x-7y=-16 \\ 2x+8y=26 \end{cases}$

6) $\begin{cases} 6x+7y=9 \\ 8x+9y=11 \end{cases}$

7) $\begin{cases} 6x+10y=14 \\ 3x+5y=7 \end{cases}$

8) $\begin{cases} a-2b=16 \\ b+3=3a \end{cases}$

9) $\begin{cases} 10x+y=306 \\ 10y+x=90 \end{cases}$

10) $\begin{cases} 4x+3y=11 \\ y=2x+2 \end{cases}$

11) $\begin{cases} x+y=0 \\ 3x-y=2 \end{cases}$

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

13) $\begin{cases} x+2y=1 \\ x-y=0 \end{cases}$

14) $\begin{cases} x+y=-1 \\ 5x-10y=4 \end{cases}$

Answers to Solving 2 x 2 Linear System by Addition

1) $(1,2)$

2) $(3,0)$

3) $\left(\frac{1}{2},-5\right)$

4) $\left(\frac{10}{21},\frac{11}{14}\right)$

5) $(1,3)$

6) $(-2,3)$

7) $\{(x,y)|3x+5y=7\}$

8) $(-2,-9)$

9) $(30,6)$

10) $\left(\frac{1}{2},3\right)$

11) $\left(\frac{1}{2},-\frac{1}{2}\right)$

12) $\left(\frac{1}{4},-\frac{3}{4}\right)$

13) $\left(\frac{1}{3},\frac{1}{3}\right)$

14) $\left(\frac{-2}{5},\frac{-3}{5}\right)$