Intermediate Algebra Skill

<u>Solving 2 x 2 Linear System by Gaussian Elimination</u>

Solve the following Linear Systems of Equations by Gaussian Elimination:

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

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

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

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

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

6) $\begin{cases} 6y-3x=14 \\ x-3y=5 \end{cases}$

7) $\begin{cases} x-y=-6 \\ x-5y=2 \end{cases}$

8) $\begin{cases} x+y=4 \\ y-2x=13 \end{cases}$

9) $\begin{cases} x-3y=-2 \\ 2x+15y=10 \end{cases}$

10) $\begin{cases} y=4x+3 \\ 8x-7y=-6 \end{cases}$

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

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

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

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

Answers to Solving 2 x 2 Linear System by Gaussian Elimination

1) $(1,2)$
2) $(2,4)$
3) $(-1,5)$
4) $(10,-7)$
5) $\left(\frac{1}{2},3\right)$
6) $\left(-4,\frac{1}{3}\right)$
7) $(-8,-2)$
8) $(-3,7)$
9) $\left(0,\frac{2}{3}\right)$
10) $\left(\frac{-3}{4},0\right)$
11) $\left(\frac{1}{2},-\frac{1}{2}\right)$
12) $\left(\frac{1}{3},\frac{1}{3}\right)$
13) $\left(\frac{1}{4},-\frac{3}{4}\right)$
14) $\left(-\frac{2}{5},-\frac{3}{5}\right)$