

Intermediate Algebra Skill

Solving 2 x 2 Linear System by Addition

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

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