Step-1

Consider the following equations:

$$x + y = 4$$
$$2x - 2y = 4$$

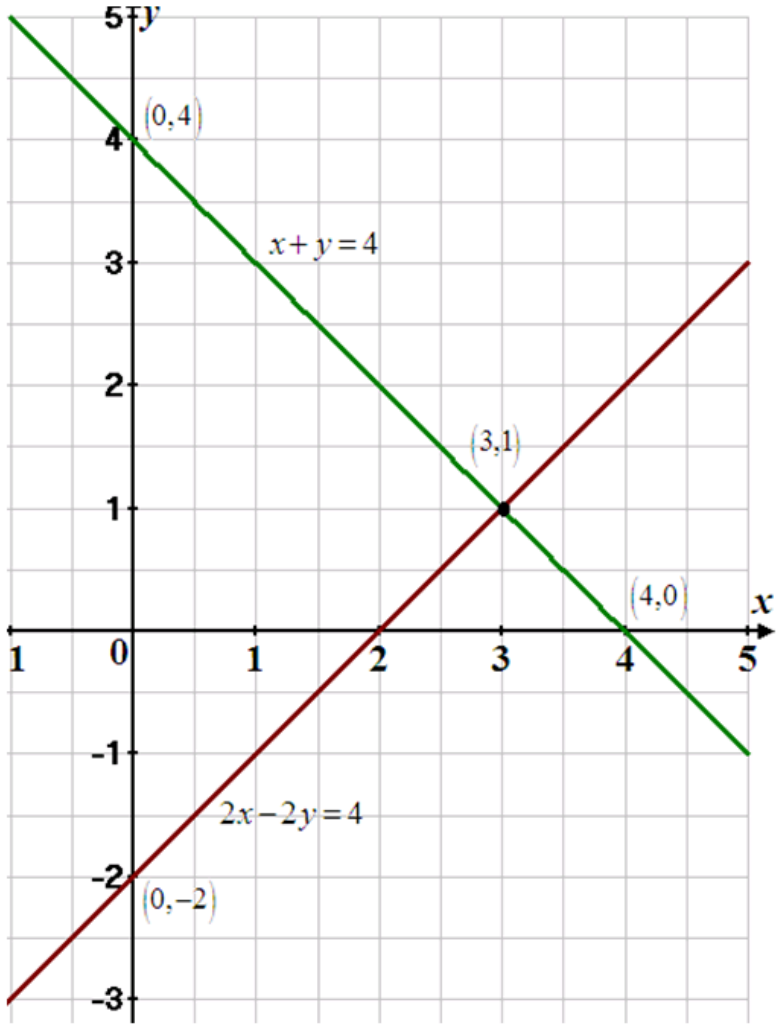
The equation $x + y = 4$ represented by a straight line in the x-y plane. The line goes through the points $x = 2, y = 2$ and $x = 4, y = 0$.

The second equation $2x - 2y = 4$ is also represented by a straight line in the x-y plane.

This line goes through the points $x = 0, y = -2$ and it crosses the first line at the solution.

Draw the row picture and the column picture for the equations $x + y = 4, 2x - 2y = 4$

The required diagram is shown as follows:



The two lines are intersecting at the point $(3,1)$.

Step-2

Column form of the given equations as follows

$$x\begin{pmatrix}1\\2\end{pmatrix}+y\begin{pmatrix}1\\-2\end{pmatrix}=\begin{pmatrix}4\\4\end{pmatrix}$$

Now consider

$$3\begin{pmatrix}1\\2\end{pmatrix}+1\begin{pmatrix}1\\-2\end{pmatrix}=\begin{pmatrix}3\\6\end{pmatrix}+\begin{pmatrix}1\\-2\end{pmatrix}$$

$$=\begin{pmatrix}3+1\\6-2\end{pmatrix}$$

$$=\begin{pmatrix}4\\4\end{pmatrix}$$

Therefore $3(\text{column1})+1(\text{column2})=(4,4)$

Sketch the column picture as shown below.