Cramer's Rule uses determinants to solve systems and was named after the wacky guy on Seinfeld. (OK, I made that last part up.)

Let's just do one and I'll show you how it works:

$$3x - y = 7$$

$$-5x + 4y = -2$$

First, we'll get the determinant of the coefficient matrix -- we'll call it D:

$$D = \begin{vmatrix} 3 & -1 \\ -5 & 4 \end{vmatrix} = (3)(4) - (-5)(-1) = 7$$

Now, we're going to find two more determinants.

The first one we'll call D_x -- here's how it goes:

Take D...

$$\begin{vmatrix} 3 & -1 \\ -5 & 4 \end{vmatrix}$$

and delete the column for the x guys...

x guys ↓ y guys ↓

$$\begin{vmatrix} -1 \\ 4 \end{vmatrix}$$

Replace that column with the " = guys " (the 7 and the -2) and you get

$$D_x = \begin{vmatrix} 7 & -1 \\ -2 & 4 \end{vmatrix} = (7)(4) - (-2)(-1) = 26$$

To get the x part of our (x, y) solution, we take

$$x = \frac{D_x}{D} = \frac{26}{7}$$

Now, to get the y part...

Take D again...

$$\begin{vmatrix} 3 & -1 \\ -5 & 4 \end{vmatrix}$$

and delete the column for the y guys...

x guys ↓ y guys ↓

$$\begin{vmatrix} 3 & \\ -5 & \end{vmatrix}$$

Replace that column with the "= guys":

$$D_y = \begin{vmatrix} 3 & 7 \\ -5 & -2 \end{vmatrix} = (3)(-2) - (-5)(7) = 29$$

So, our y part is

$$y = \frac{D_y}{D} = \frac{29}{7}$$

and our final answer is $\left(\frac{26}{7}, \frac{29}{7}\right)$. That's it!