As we know that general form of a pair of linear equations is $a_1x+b_1y+c_1=0$
$a_2x+b_2y+c_2=0$

Now learn the following conditions carefully

1) If $\frac{a_1}{a_2}=\frac{b_1}{b_2}\neq\frac{c_1}{c_2}$ then graphically or geometrically a pair of linear equations represents parallel lines. and a pair of linear equtions is inconsistent and has no solution.

2) If $\frac{a_1}{a_2}\neq\frac{b_1}{b_2}$ then graphically a pair of linear equations represents intersecting lines and it is called a consistent pair of linear equation and has a unique solution.

3) If $\frac{a_1}{a_2}=\frac{b_1}{b_2}=\frac{c_1}{c_2}$, then graphically a pair of linear equations represents coincident lines, it is consistent and has infinitely many solutions.

For example $x+2y-4=0$
$2x+4y-12=0$

This pair of linear equations represents pair of parallel lines.

* Solve this by using graphical method and any one algebraic method.

⇒ A pair of linear equations $x-2y=0$
$3x+4y=20$

represents a pair of intersecting lines.

* Solve this by using graphical method and any one algebraic method.

⇒ A pair of linear equations $2x+3y-9=0$
$4x+6y-18=0$

represents coincident lines.

★ Solve this pair of linear equation by using graphical method and any one algebraic method.

⇒ Equations Reducible to a pair of linear Equations in two variables:

Let us understand it by an example

Solve $\frac{2}{x}+\frac{3}{y}=13$

$\frac{5}{x}-\frac{4}{y}=-2$

we can rewrite it as $2\left(\frac{1}{x}\right)+3\left(\frac{1}{y}\right)=13$

$5\left(\frac{1}{x}\right)-4\left(\frac{1}{y}\right)=-2$

Let us substitute $\frac{1}{x}=p$ and $\frac{1}{y}=q$

$2p+3q=13$

$5p-4q=-2$

Solving by using any algebraic method (Substitution, Elimination or cross multiplication method)

We get $p=2$ and $q=3$

∵ we have to find value of x and y

and we have $\frac{1}{x}=p$ | $\frac{1}{y}=q$

$\Rightarrow \frac{1}{x}=2$ | $\frac{1}{y}=3$

$\Rightarrow \boxed{x=1/2}$ | $\Rightarrow \boxed{y=1/3}$

Hence we get $x=1/2$ and $y=1/3$

★ Solve $\frac{x}{10}+\frac{y}{5}=14$

$\frac{x}{8}+\frac{y}{6}=15$