Steps for Graphical Method

Formulate the LPP

Construct a graph and plot the constraint lines

Determine the valid side of each constraint line

Identify the feasible solution region

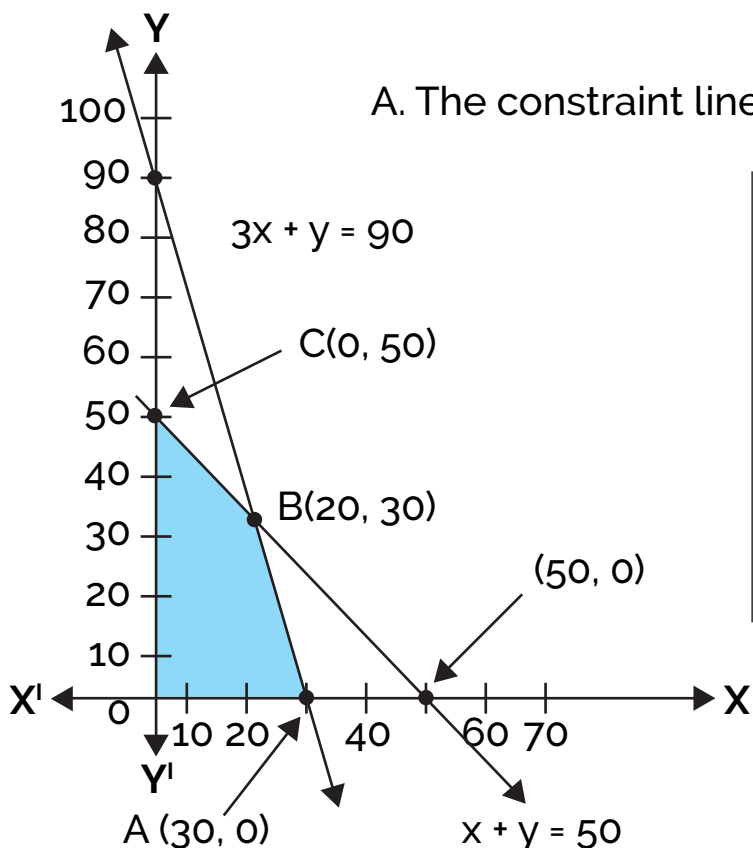Find the optimum points

Calculate the co-ordinates of optimum points

Evaluate the objective function at optimum points to get the required maximum/minimum value of the objective function

Solved Example

Q. Maximize and minimize $z = 4x + y$ subject to:- $x + y \leq 50$
$$3x + y \leq 90$$
$$x \geq 0, y \geq 0$$

A. The constraint lines are $x + y = 50$, $3x + y = 90$, $x = 0$, $y = 0$

Corner Point	Corresponding value of Z
(0, 0)	0
(30, 0)	120
(20, 30)	110
(0, 50)	50

Hence, maximum value of Z is 120 at the point (30, 0) and the minimum value of z is 0 at the point (0, 0).