

Problems having Infeasible Solutions.

In some of the linear programming problems, constraints are inconsistent i.e. there does not exist any point which satisfies all the constraints. Such type of linear programming problems are said to have infeasible solution.

For Example: Maximize $Z = 5x + 2y$

Subject to the constraints

$$x + y \leq 2, 3x + 3y \geq 2, x, y \geq 0$$

The above problem is illustrated graphically in the fig.

There is no point satisfying the set of above constraints. Thus, the problem is having an infeasible solution.

