

# Download Basic Feasible Solution Definition

In Linear Programming (LP) a basic feasible solution is one that also belong to the feasible region or problem area can be represented by a feasible solution in implementing the Simplex Method satisfying nonnegative conditions. To formulate the problem such that an initial basic feasible solution is readily available, and, thus avoid the computational effort involved in Phase 1 of the simplex method. Basic feasible solution (B.F.S) - For  $m \times n$  transportation problem if number of allocations are  $m+n-1$  then it is called as basic feasible solution. Non degenerate B.F.S- when all allocation are not forming a loop (independent position) and total allocations are  $m+n-1$ . Feasible solution is any element of the feasible region of an optimization problem. The feasible region is the set of all possible solutions of an optimization problem.