

Linear programming essay sample



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Linear Programming History of linear programming goes back as far as 1940s. Main motivation for the need of linear programming goes back to the war time when they needed ways to solve many complex planning problems. The simplex method which is used to solve linear programming was developed by George B. Dantzig, in 1947. Dantzig, was one in who did a lot of work on linear programming, he was reconzied by several honours. Dantzig's discovery was through his personal contribution, during WWII when Dantzig was working in the pentagon with the military, one of his colleagues challenged him, asking “ speed up the planning process”. Discovery of the simplex method was his solution.

Linear programming is a powerful tool to solve many problems that arise in many different areas of the outside world. Simplex method has been standard method of solving most Linear programmings since 1940s. Simplex method uses of maximizing and minimizing a linear function to find a feasible set, from then on determined as a miximizer or a minimizer. It can handle many hundreds of variables and in that way it's extremely powerful. These problems can actually be programmed in to a computer to solve problems with extreme number of variables. Ability to handly many thousands of variables gives it's greatest advantages of all.

Linear programming applications can be found in many different industries & these industries include airline crew scheduling, shipping or telecommunication networks, oil refining and blending, and stock and bond portfolio selection Importance of linear programming goes to a very high extent and it's now used in many small & big companys.. Linear

programming are also used to allocate resources, plan production, schedule workers, financial problems & also used in military planning.

All types of problems can be solved that contain a linear function which is to be maximized or minimized and given the constraints.

Solving any linear programming problem is very simple.

” First step of is to find the equation to be maximized or minimized.

” Find all different constraints “ ϕ Plot points on the graph and find the extreme points “ ϕ Differentiate the feasible set with the non-feasible set ”
Calculate solution using the extreme or the edge points

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