
```
function problem1

%Navneet Singh (nsingh1@andrew.cmu.edu)
%HW-4 Prb 1

clc          %clear screen
clear all    %clearing all stored variables
close all    %close previous plots

%Defining the objective function
% f(x) = x1 + x2
f = [1 1];

%Defining inequality constraints in for Ax < b

%Defining A matrix
A = [-3  1;
      1  2;
      1  1;
      -1  0;
      0 -1];

%Defining b vector
b = [-3;
      5;
      4;
      0;
      0];

%using linprog function to get optimized value
[x val]= linprog(f, A, b);

fprintf('Minimum value of function is %f\nAt Min,\n', val)
fprintf('Value of x1 = %f \nValue of x2 = %f\n', x(1),x(2))

end

Optimization terminated.
Minimum value of function is 1.000000
At Min,
Value of x1 = 1.000000
Value of x2 = -0.000000
```

Published with MATLAB® R2016a