

Multiobjective optimization - Weak Minima Auxiliary problem

```
clear all
c=[0, 0, 0, 0, 0, 0, -1];
A=[ 0 0 0 -1 0 0 1; 0 0 0 0 -1 0 1 ;
    0 0 0 0 0 -1 1; 1 2 -3 1 0 0 0 ;
    -1 -1 -1 0 1 0 0; -4 -2 1 0 0 1 0;
    1 1 1 0 0 0 0; 0 0 1 0 0 0 0]
b= [0;0;0;-10; -10;-15;10;5]
Aeq=[];
beq=[];
lb= [zeros(6,1); -Inf]
[X,FVALWEAK]=linprog(c,A,b,[],[],lb,[])
```

Multiobjective optimization – Minima Auxiliary problem

```
clear all
c = [ 0, 0, 0, 0, -1, -1]; %f2(x)
A =[2 3 -1 -2 1 0
    -5 -2 3 1 0 1
    1 1 0 0 0 0
    0 0 1 1 0 0
    -1 0 0 0 0 0
    0 -1 0 0 0 0
    0 0 -1 0 0 0
    0 0 0 -1 0 0
    0 0 0 0 -1 0
    0 0 0 0 0 -1];
b = [10;-45;10;5;0;0;0;0;0;0] ;

%10 -45 li ottengo sostituendo i punti dati dalla consegna alle funzioni
%obiettivo (in questo caso [10 0 0 5])

Aeq=[];
beq=[];
lb= zeros(6,1)
ub= [ ];
[x,FvalMin]=linprog(c, A, b,[],[],lb,ub)
```