

```
from scipy.optimize import linprog

#Min z= x1-3x2+2x3
#subject to
#3x1-x2+3x3<=7
#-2x1+4x2<=12
#-4x1+3x2+8x3<=10
#x1,x2,x3>=0
obj = [1, -3, 2]

lhs_ineq = [[ 3, -1, 3], # Red constraint left side
... [-2, 4, 0], # Blue constraint left side
... [-4, 3, 8]] # Yellow constraint left side

rhs_ineq = [7, # Red constraint right side
... 12, # Blue constraint right side
... 10] # Yellow constraint right side

bnd = [(0, float("inf")), # Bounds of x
... (0, float("inf")),
... (0, float("inf"))] # Bounds of y

opt = linprog(c=obj, A_ub=lhs_ineq, b_ub=rhs_ineq,
... bounds=bnd,
... method="revised simplex")

opt

      con: array([], dtype=float64)
      fun: -11.0
message: 'Optimization terminated successfully.'
      nit: 2
      slack: array([ 0.,  0., 11.])
      status: 0
      success: True
           x: array([4., 5., 0.]
```

 0s completed at 12:01 PM

 