```
from scipy.optimize import linprog
#Max z=x+2y
#subject to
#2x+y<=20
#-4x+5y<=10
#-x+2y>=-2
#-x+5y=15
#x,y>=0



obj = [-1, -2]


lhs_ineq = [[ 2, 1], # Red constraint left side
            [-4, 5], # Blue constraint left side
            [ 1, -2]] # Yellow constraint left side


rhs_ineq = [20, # Red constraint right side
            10, # Blue constraint right side
            2] # Yellow constraint right side


lhs_eq = [[-1, 5]] # Green constraint left side
rhs_eq = [15] # Green constraint right side



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


opt = linprog(c=obj, A_ub=lhs_ineq, b_ub=rhs_ineq,
              A_eq=lhs_eq, b_eq=rhs_eq, bounds=bnd,
              method="revised simplex")


opt
```

```
          con: array([1.77635684e-15])
          fun: -16.818181818181817
      message: 'Optimization terminated successfully.'
          nit: 3
        slack: array([ 0.        , 18.18181818,  3.36363636])
       status: 0
      success: True
            x: array([7.72727273, 4.54545455])
```

✓ 0s completed at 12:03 PM