```
#Min z= 4x1 + x2
#subjected to:
#3x1 + 4x2 >= 20
#x1 + 5x2 >= 15
#x1, x2 >= 0
from scipy.optimize import linprog



obj = [4, 1]



lhs_ineq = [[ -3, -4], # left side of first constraint
... [-1, -5]] # right side of first constraint



rhs_ineq = [-20, # right side of first constraint
... -15] # right side of Second constraint


bnd = [(0, float("inf")), # Bounds of x1
... (0, float("inf"))] # Bounds of x2



 opt = linprog(c=obj, A_ub=lhs_ineq, b_ub=rhs_ineq,
... bounds=bnd,method="interior-point")


     /usr/local/lib/python3.7/dist-packages/numpy/core/fromnumeric.py:87: VisibleDeprecationW
       return ufunc.reduce(obj, axis, dtype, out, **passkwargs)
```

```
opt
```

```
          con: array([], dtype=float64)
          fun: 5.000000000236442
      message: 'Optimization terminated successfully.'
          nit: 5
        slack: array([1.64256164e-10, 1.00000000e+01])
       status: 0
      success: True
            x: array([6.01160437e-11, 5.00000000e+00])
```

✓ 0s completed at 12:13 PM