```
D:\Python\Python\setroute\python.exe "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\pydevconsole.py" --
    mode=client --port=34715
 3
   import sys; print('Python %s on %s' % (sys.version, sys.platform))
    6
    PyDev console: starting.
 8 Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
    main RO CCG.py', wdir='E:/1 0000/3 00000/1 000000/1 0000000/1 000000/1 LW 00001/4 0000/3 python_code/9 Code for
10 Backend TkAgg is interactive backend. Turning interactive mode on.
11
    Waiting 5s.....
13 Optimize the ./R 18 1.xlsx instance by CCG
14
          Master protblem status = 2, is Optimal and MP obj = 992.0
15
16
    The initial lb = -inf
                              ub = inf
17
18
    The current iteration cnt = 0
          The SP model was solved Optimal 2 and SPObj = 988.0
19
          Deterministic Sub problem Status= 2, is Optimal
20
         1b = 1851.0
                                      ub = 1851.0
21
22
          MPObj = 1851.0
                                  MP_delete_Hua_Obj = 1021.0 Hua = 830.0
                                                                                          SPObj = 988.0
                                                                                                               Deter_SP_Obj = 830.0
24
    ub - 1b = 0.0
25
26
   Iteration cycle stopped by termination criterion 1: Because ub - 1b \le eps, the iteration stop, and ext{cnt} = 0
27
       i: 0.0 l_i: 6.0 p_i: 18.0 al_i: 6.0 sol_a_i: 6.0 sol_g_i: 0.0 d_i: 19.0 sol_taoi: 6.0 sol_deltai: 21.0 sol_deltai - sol_taoi: 15.0 sol_taoP: 6
          sol_deltaP: 8.0 sol_deltaP - sol_taoP: 2.0 cl_i: 3936269.0 sol_c_i: 3936269.0 sol_gp_i: 0.0 total work: 3954660.0 wasted work: 0.
    06975694497124911
      i: 1.0 1_i: 4.0 p_i: -0.0 aI_i: 25.0 sol_a_i: 25.0 sol_g_i: 0.0 d_i: 41.0 sol_taoi: 25.0 sol_deltai: 44.0 sol_deltai - sol_taoi: 19.0 sol_c_i: 4808679.0 sol_deltaP - sol_taoi: 19.0 sol_deltaD - sol_taoi: 19.0 sol_deltaD - sol_taoi: 19.0 sol_deltaD - sol_taoi: 19.0 sol_deltaD - sol_taoi: 19.0 sol_taoi: 1
                                                       sol_a_i: 25.0 sol_g_i: 0.0 d_i: 41.0 sol_taoi: 25.0 sol_deltai: 44.0 sol_deltai - sol_taoi: 19.0 sol_taoP
    7607114138762877
       i: 2.0 1_i: 5.0 p_i: -0.0 aI_i: 56.0
                                                        sol_a_i: 56.0 sol_g_i: 0.0 d_i: 77.0 sol_taoi: 56.0 sol_deltai: 81.0 sol_deltai - sol_taoi: 25.0 sol_taoP
    : 56.0 sol deltaP: 63.0 sol deltaP - sol taoP: 7.0 cl i: 6567617.0 sol c i: 6567617.0 sol gp i: 0.0 total work: 6854744.0 wasted work: 1.
    0890708682920909
30
       i: 3.0 1_i: 4.0 p_i: 24.0 aI_i: 44.0
                                                        sol_a_i: 44.0 sol_g_i: 0.0 d_i: 66.0 sol_taoi: 44.0 sol_deltai: 70.0 sol_deltai - sol_taoi: 26.0 sol_taoP
    : 44.0 sol_deltaP: 50.0 sol_deltaP - sol_taoP: 6.0 cl_i: 6649403.0 sol_c_i: 6649403.0 sol_gp_i: 0.0 total work: 7513854.0 wasted work: 3.
    278857095173795
                                                   sol_a_i: 60.0 sol_g_i: 0.0 d_i: 61.0 sol_taoi: 60.0 sol_deltai: 62.0 sol_deltai - sol_taoi: 2.0 sol_taoP:
31
       i: 4.0 1 i: 6.0 p i: 8.0 aI i: 60.0
    60.0 sol deltaP: 61.0 sol deltaP - sol taoP: 1.0 cl i: 339223.0 sol c i: 339223.0 sol gp i: 0.0 total work: 395466.0
    21332933804676002
                                                       sol_a_i: 42.0 sol_g_i: 0.0 d_i: 54.0 sol_taoi: 42.0 sol_deltai: 56.0 sol_deltai - sol_taoi: 14.0 sol_taoP
32
       i: 5.0 1 i: 4.0 p i: 15.0 aI i: 42.0
      42.0 sol_deltaP: 47.0 sol_deltaP - sol_taoP: 5.0 cI_i: 3511961.0
                                                                                    sol_c_i: 3511961.0 sol_gp_i: 0.0 total work: 3559194.0 wasted work: 0.
    17915446587064374
       i: 6.0 1_i: 5.0 p_i: 13.0 aI_i: 16.0
                                                        sol a i: 16.0 sol g i: 0.0 d i: 35.0 sol taoi: 16.0 sol deltai: 38.0 sol deltai - sol taoi: 22.0 sol taoP
      16.0 sol_deltaP: 20.0 sol_deltaP - sol_taoP: 4.0 cl_i: 5705651.0 sol_c_i: 5705651.0 sol_gp_i: 0.0 total work: 7118388.0 wasted work: 5.
    358502374413982
                                                       sol_a_i: 56.0 sol_g_i: 0.0 d_i: 58.0 sol_taoi: 56.0 sol_deltai: 59.0 sol_deltai - sol_taoi: 3.0 sol_taoP
      i: 7.0 1_i: 5.0 p_i: 10.0 aI_i: 56.0
      56.0 sol_deltaP: 57.0 sol_deltaP - sol_taoP: 1.0 cl_i: 557774.0 sol_c_i: 557774.0 sol_gp_i: 0.0 total work: 659110.0
    3843667976513784
       i: 8.0 1_i: 5.0 p_i: 28.0 aI_i: 56.0
                                                        sol_a_i: 56.0 sol_g_i: 0.0 d_i: 77.0 sol_taoi: 56.0 sol_deltai: 81.0 sol_deltai - sol_taoi: 25.0 sol_taoP
      56.0 sol deltaP: 62.0 sol deltaP - sol taoP: 6.0 cl i: 6352406.0 sol c i: 6352406.0 sol gp i: 0.0 total work: 6722922.0 wasted work: 1.
    4053648101227412
36
       i: 9.0 1_i: 5.0 p_i: 9.0 al_i: 40.0 sol_a_i: 40.0 sol_g_i: 0.0 d_i: 52.0 sol_taoi: 40.0 sol_deltai: 54.0 sol_deltai - sol_taoi: 14.0 sol_taoP:
            sol_deltaP: 42.0 sol_deltaP - sol_taoP: 2.0 cl_i: 3432575.0
                                                                                    sol_c_i: 3432575.0 sol_gp_i: 0.0 total work: 3559194.0 wasted work: 0.
    48026505439152795
37
       sol_a_i: 50.0 sol_g_i: 0.0 d_i: 70.0 sol_taoi: 50.0 sol_deltai: 73.0 sol_deltai - sol_taoi: 23.0
    sol_taoP: 50.0 sol_deltaP: 55.0 sol_deltaP - sol_taoP: 5.0 cl_i: 5803649.0 sol_c_i: 5803649.0 sol_gp_i: 0.0 total work: 6591100.0 wasted work
    : 2.986796589340171
                                                          sol_a_i: 32.0 sol_g_i: 0.8 d_i: 42.0 sol_taoi: 32.0 sol_deltai: 46.0 sol_deltai - sol_taoi: 14.0
38
       i: 11.0    1_i: 6.0    p_i: 28.0    aI_i: 28.0
    sol_taoP: 32.0 sol_deltaP: 37.0 sol_deltaP - sol_taoP: 5.0 cl_:: 3570542.0 sol_c_i: 4414202.8 sol_gp_i: 0.8 total work: 4613770.0 wasted work
    : 0.7569571088285726
       i: 12.0 1_i: 5.0 p_i: 5.0 aI_i: 53.0
                                                       sol a i: 56.0 sol g i: 0.375 d i: 65.0 sol taoi: 63.0 sol deltai: 76.0 sol deltai - sol taoi: 13.0
    sol_taoP: 63.0 sol_deltaP: 68.0 sol_deltaP - sol_taoP: 5.0 cI_i: 3418286.0 sol_c_i: 3464972.5 sol_gp_i: 0.025297370696848787 total work:
    3691016.0 wasted work: 0.8573815448104262
                                                          sol_a_i: 62.0 sol_g_i: 0.3 d_i: 65.0 sol_taoi: 63.0 sol_deltai: 68.0 sol_deltai - sol_taoi: 5.0
40
       sol_taoP: 63.0 sol_deltaP: 65.0 sol_deltaP - sol_taoP: 2.0 cl_i: 1067915.0 sol_c_i: 1581864.0 sol_gp_i: 0.9747026293031512 total work:
    1581864.0 wasted work: 0.0
                  1_i: 6.0 p_i: 7.0 aI_i: 29.0
                                                        sol_a_i: 29.786111111111115 sol_g_i: 0.11230158730158801 d_i: 39.0 sol_taoi: 30.0 sol_deltai: 37.0
       sol deltai - sol taoi: 7.0 sol taoP: 30.0 sol deltaP: 32.0 sol deltaP - sol taoP: 2.0 cl i: 1739820.0 sol c i: 2372796.0 sol gp i: 0.
    4801747811442703 total work: 2372796.0 wasted work: 0.0
                                                          sol a i: 62.0 sol g i: 0.8571428571428571 d i: 62.0 sol taoi: 62.0 sol deltai: 70.0 sol deltai -
       sol_taoi: 8.0 sol_taoP: 62.0 sol_deltaP: 64.0 sol_deltaP - sol_taoP: 2.0 cl_i: 2100599.0 sol_c_i: 2768262.0 sol_gp_i: 0.3165551842636282
    total work: 2900084.0 wasted work: 0.5
       sol_a_i: 27.0 sol_g_i: 1.0 d_i: 38.0 sol_taoi: 27.0 sol_deltai: 44.0 sol_deltai - sol_taoi: 17.0
    sol_taoP: 27.0 sol_deltaP: 31.0 sol_deltaP - sol_taoP: 4.0 cl_i: 4470957.0 sol_c_i: 5789177.0 sol_gp_i: 1.0 total work: 5800168.0 wasted work
    : 0.04168879246256316
       i{:}\ \ 17.0 \quad \  1\_i{:}\ \ 4.0 \quad \  p\_i{:}\ \ 24.0 \quad \  aI \ \ i{:}\ \ 26.0
                                                          sol_a_i: 31.0 sol_g_i: 0.555555555555556 d_i: 42.0 sol_taoi: 31.0
                                                                                                                                             sol deltai: 41.0 sol deltai -
    sol_taoi: 10.0 sol_taoP: 31.0 sol_deltaP: 35.0 sol_deltaP - sol_taoP: 4.0 cl_i: 2423424.0 sol_c_i: 3273981.8000000003 sol_gp_i: 0.
    4032700345921016 total work: 3295550.0 wasted work: 0.08180804418078819
```

unknown

45	ime: 1646,000000
46	ime: 1646.000000
47	
48	
49	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
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1	