

```

1 C:\Python\Python39\python.exe "C:/Users/Rishi
Mehdiratta/PycharmProjects/pythonProject13/main.py"
2 {'county 1': '(1, 1.5)', 'county 2': '(3, 1)', 'county 3': '(5.5, 1.5)', 'county 4': '(1, 4.5 )', 'county 5': '(3, 3.5)', 'county 6': '(5.5, 4.5)', 'county 7': '(1, 8)', 'county 8': '(3, 6)', 'county 9': '(4.5, 8)'}
3 {'facility 1': '(1, 2)', 'facility 2': '(2.5, 1)', 'facility 3': '(5, 1)', 'facility 4': '(6.5, 3.5)', 'facility 5': '(1, 5)', 'facility 6': '(3, 4)', 'facility 7': '(5, 4)', 'facility 8': '(6.5, 5.5)', 'facility 9': '(1, 8.5)', 'facility 10': '(1.5, 9.5)', 'facility 11': '(8.5, 6)', 'facility 12': '(5, 8)', 'facility 13': '(3, 9)', 'facility 14': '(6, 9)', 'facility 15': '(1.5, 1)', 'facility 16': '(3.5, 1.5)', 'facility 17': '(5.5, 2.5)', 'facility 18': '(1.5, 3.5)', 'facility 19': '(3.5, 2.5)', 'facility 20': '(4.5, 4.5)', 'facility 21': '(1.5, 6.5)', 'facility 22': '(3.5, 6.5)', 'facility 23': '(5.5, 6.5)'}
4 {'county 1': 351.0, 'county 2': 230.0, 'county 3': 529.0, 'county 4': 339.0, 'county 5': 360.0, 'county 6': 527.0, 'county 7': 469.0, 'county 8': 234.0, 'county 9': 500.0}
5 {'facility 1': 281, 'facility 2': 187, 'facility 3': 200, 'facility 4': 223, 'facility 5': 281, 'facility 6': 281, 'facility 7': 222, 'facility 8': 200, 'facility 9': 250, 'facility 10': 125, 'facility 11': 187, 'facility 12': 300, 'facility 13': 300, 'facility 14': 243, 'facility 15': 100, 'facility 16': 100, 'facility 17': 100, 'facility 18': 100, 'facility 19': 100, 'facility 20': 100, 'facility 21': 100, 'facility 22': 100, 'facility 23': 100}
6 ['facility 1', 'facility 2', 'facility 3', 'facility 4', 'facility 5', 'facility 6', 'facility 7', 'facility 8', 'facility 9', 'facility 10', 'facility 11', 'facility 12', 'facility 13', 'facility 14', 'facility 15']
7 {('county 1', 'facility 1'): 0.5, ('county 1', 'facility 2'): 1.5811388300841898, ('county 1', 'facility 3'): 4.031128874149275, ('county 1',

```

```
7 facility 4'): 5.852349955359813, ('county 1', 'facility 5'): 3.5, ('county 1', 'facility 6'): 3.2015621187164243, ('county 1', 'facility 7'): 4.716990566028302, ('county 1', 'facility 8'): 6.800735254367722, ('county 1', 'facility 9'): 7.0, ('county 1', 'facility 10'): 8.0156097709407, ('county 1', 'facility 11'): 8.74642784226795, ('county 1', 'facility 12'): 7.6321687612368745, ('county 1', 'facility 13'): 7.762087348130012, ('county 1', 'facility 14'): 9.013878188659973, ('county 1', 'facility 15'): 0.7071067811865476, ('county 1', 'facility 16'): 2.5, ('county 1', 'facility 17'): 4.609772228646444, ('county 1', 'facility 18'): 2.0615528128088303, ('county 1', 'facility 19'): 2.6925824035672523, ('county 1', 'facility 20'): 4.6097722286464435, ('county 1', 'facility 21'): 5.024937810560445, ('county 1', 'facility 22'): 5.5901699437494745, ('county 1', 'facility 23'): 6.726812023536856, ('county 2', 'facility 1'): 2.23606797749979, ('county 2', 'facility 2'): 0.5, ('county 2', 'facility 3'): 2.0, ('county 2', 'facility 4'): 4.301162633521313, ('county 2', 'facility 5'): 4.47213595499958, ('county 2', 'facility 6'): 3.0, ('county 2', 'facility 7'): 3.6055512754639896, ('county 2', 'facility 8'): 5.70087712549569, ('county 2', 'facility 9'): 7.762087348130012, ('county 2', 'facility 10'): 8.631338250816034, ('county 2', 'facility 11'): 7.433034373659252, ('county 2', 'facility 12'): 7.280109889280519, ('county 2', 'facility 13'): 8.0, ('county 2', 'facility 14'): 8.54400374531753, ('county 2', 'facility 15'): 1.5, ('county 2', 'facility 16'): 0.7071067811865476, ('county 2', 'facility 17'): 2.91547594742265, ('county 2', 'facility 18'): 2.91547594742265, ('county 2', 'facility 19'): 1.5811388300841898, ('county 2', 'facility 20'): 3.8078865529319543, ('county 2', 'facility 21'): 5.70087712549569, ('county 2', 'facility 22'): 5.522680508593631, ('county 2', 'facility 23'): 6.041522986797285, ('county 3', 'facility 1'): 4.527692569068709, ('county 3', 'facility 2'): 3.0413812651491092, ('county 3', '
```

```

7 facility 3'): 0.7071067811865476, ('county 3', '
facility 4'): 2.23606797749979, ('county 3', '
facility 5'): 5.70087712549569, ('county 3', '
facility 6'): 3.5355339059327378, ('county 3', '
facility 7'): 2.5495097567963927, ('county 3', '
facility 8'): 4.123105625617661, ('county 3', '
facility 9'): 8.32165848854662, ('county 3', '
facility 10'): 8.94427190999916, ('county 3', '
facility 11'): 5.408326913195984, ('county 3', '
facility 12'): 6.519202405202649, ('county 3', '
facility 13'): 7.905694150420949, ('county 3', '
facility 14'): 7.516648189186455, ('county 3', '
facility 15'): 4.031128874149275, ('county 3', '
facility 16'): 2.0, ('county 3', 'facility 17'): 1.0
, ('county 3', 'facility 18'): 4.47213595499958, (''
county 3', 'facility 19'): 2.23606797749979, ('county
3', 'facility 20'): 3.1622776601683795, ('county 3
', 'facility 21'): 6.4031242374328485, ('county 3', '
facility 22'): 5.385164807134505, ('county 3', '
facility 23'): 5.0, ('county 4', 'facility 1'): 2.5
, ('county 4', 'facility 2'): 3.8078865529319543, (''
county 4', 'facility 3'): 5.315072906367325, ('county
4', 'facility 4'): 5.590169943749474, ('county 4', '
facility 5'): 0.5, ('county 4', 'facility 6'): 2.
0615528128088303, ('county 4', 'facility 7'): 4.
031128874149275, ('county 4', 'facility 8'): 5.
590169943749474, ('county 4', 'facility 9'): 4.0, (''
county 4', 'facility 10'): 5.024937810560445, (''
county 4', 'facility 11'): 7.648529270389178, (''
county 4', 'facility 12'): 5.315072906367325, (''
county 4', 'facility 13'): 4.924428900898052, (''
county 4', 'facility 14'): 6.726812023536856, (''
county 4', 'facility 15'): 3.5355339059327378, (''
county 4', 'facility 16'): 3.905124837953328, (''
county 4', 'facility 17'): 4.924428900898052, (''
county 4', 'facility 18'): 1.118033988749895, (''
county 4', 'facility 19'): 3.2015621187164243, (''
county 4', 'facility 20'): 3.5, ('county 4', '
facility 21'): 2.0615528128088303, ('county 4', '
facility 22'): 3.2015621187164243, ('county 4', '
facility 23'): 4.924428900898052, ('county 5', '

```

7 facility 1'): 2.5, ('county 5', 'facility 2'): 2.  
5495097567963927, ('county 5', 'facility 3'): 3.  
2015621187164243, ('county 5', 'facility 4'): 3.5, ('  
county 5', 'facility 5'): 2.5, ('county 5', 'facility  
6'): 0.5, ('county 5', 'facility 7'): 2.  
0615528128088303, ('county 5', 'facility 8'): 4.  
031128874149275, ('county 5', 'facility 9'): 5.  
385164807134505, ('county 5', 'facility 10'): 6.  
18465843842649, ('county 5', 'facility 11'): 6.  
041522986797285, ('county 5', 'facility 12'): 4.  
924428900898052, ('county 5', 'facility 13'): 5.5, ('  
county 5', 'facility 14'): 6.264982043070834, ('  
county 5', 'facility 15'): 2.91547594742265, ('county  
5', 'facility 16'): 2.0615528128088303, ('county 5  
, 'facility 17'): 2.6925824035672523, ('county 5', '  
facility 18'): 1.5, ('county 5', 'facility 19'): 1.  
118033988749895, ('county 5', 'facility 20'): 1.  
8027756377319948, ('county 5', 'facility 21'): 3.  
3541019662496847, ('county 5', 'facility 22'): 3.  
0413812651491092, ('county 5', 'facility 23'): 3.  
905124837953328, ('county 6', 'facility 1'): 5.  
1478150704935, ('county 6', 'facility 2'): 4.  
6097722286464435, ('county 6', 'facility 3'): 3.  
5355339059327378, ('county 6', 'facility 4'): 1.  
4142135623730951, ('county 6', 'facility 5'): 4.  
527692569068709, ('county 6', 'facility 6'): 2.  
5495097567963927, ('county 6', 'facility 7'): 0.  
7071067811865476, ('county 6', 'facility 8'): 1.  
4142135623730951, ('county 6', 'facility 9'): 6.  
020797289396148, ('county 6', 'facility 10'): 6.  
4031242374328485, ('county 6', 'facility 11'): 3.  
3541019662496847, ('county 6', 'facility 12'): 3.  
5355339059327378, ('county 6', 'facility 13'): 5.  
1478150704935, ('county 6', 'facility 14'): 4.  
527692569068709, ('county 6', 'facility 15'): 5.  
315072906367325, ('county 6', 'facility 16'): 3.  
6055512754639896, ('county 6', 'facility 17'): 2.0  
, ('county 6', 'facility 18'): 4.123105625617661, ('  
county 6', 'facility 19'): 2.8284271247461903, ('  
county 6', 'facility 20'): 1.0, ('county 6', '  
facility 21'): 4.47213595499958, ('county 6', '

```
7 facility 22'): 2.8284271247461903, ('county 6', 'facility 23'): 2.0, ('county 7', 'facility 1'): 6.0, ('county 7', 'facility 2'): 7.158910531638176, ('county 7', 'facility 3'): 8.06225774829855, ('county 7', 'facility 4'): 7.1063352017759485, ('county 7', 'facility 5'): 3.0, ('county 7', 'facility 6'): 4.47213595499958, ('county 7', 'facility 7'): 5.656854249492381, ('county 7', 'facility 8'): 6.041522986797285, ('county 7', 'facility 9'): 0.5, ('county 7', 'facility 10'): 1.5811388300841898, ('county 7', 'facility 11'): 7.762087348130012, ('county 7', 'facility 12'): 4.0, ('county 7', 'facility 13'): 2.23606797749979, ('county 7', 'facility 14'): 5.099019513592785, ('county 7', 'facility 15'): 7.0178344238091, ('county 7', 'facility 16'): 6.96419413859206, ('county 7', 'facility 17'): 7.1063352017759485, ('county 7', 'facility 18'): 4.527692569068709, ('county 7', 'facility 19'): 6.041522986797285, ('county 7', 'facility 20'): 4.949747468305833, ('county 7', 'facility 21'): 1.5811388300841898, ('county 7', 'facility 22'): 2.91547594742265, ('county 7', 'facility 23'): 4.743416490252569, ('county 8', 'facility 1'): 4.47213595499958, ('county 8', 'facility 2'): 5.024937810560445, ('county 8', 'facility 3'): 5.385164807134505, ('county 8', 'facility 4'): 4.301162633521313, ('county 8', 'facility 5'): 2.23606797749979, ('county 8', 'facility 6'): 2.0, ('county 8', 'facility 7'): 2.8284271247461903, ('county 8', 'facility 8'): 3.5355339059327378, ('county 8', 'facility 9'): 3.2015621187164243, ('county 8', 'facility 10'): 3.8078865529319543, ('county 8', 'facility 11'): 5.5, ('county 8', 'facility 12'): 2.8284271247461903, ('county 8', 'facility 13'): 3.0, ('county 8', 'facility 14'): 4.242640687119286, ('county 8', 'facility 15'): 5.220153254455275, ('county 8', 'facility 16'): 4.527692569068709, ('county 8', 'facility 17'): 4.301162633521313, ('county 8', 'facility 18'): 2.91547594742265, ('county 8', 'facility 19'): 3.5355339059327378, ('county 8', '
```

```

7 facility 20'): 2.121320343559643, ('county 8', '
facility 21'): 1.5811388300841898, ('county 8', '
facility 22'): 0.7071067811865476, ('county 8', '
facility 23'): 2.5495097567963927, ('county 9', '
facility 1'): 6.946221994724903, ('county 9', '
facility 2'): 7.280109889280519, ('county 9', '
facility 3'): 7.0178344238091, ('county 9', 'facility
4'): 4.924428900898052, ('county 9', 'facility 5'): 4.6097722286464435, ('county 9', 'facility 6'): 4.272001872658765, ('county 9', 'facility 7'): 4.031128874149275, ('county 9', 'facility 8'): 3.2015621187164243, ('county 9', 'facility 9'): 3.5355339059327378, ('county 9', 'facility 10'): 3.3541019662496847, ('county 9', 'facility 11'): 4.47213595499958, ('county 9', 'facility 12'): 0.5, ('county 9', 'facility 13'): 1.8027756377319948, ('county 9', 'facility 14'): 1.8027756377319948, ('county 9', 'facility 15'): 7.615773105863909, ('county 9', 'facility 16'): 6.576473218982952, ('county 9', 'facility 17'): 5.590169943749474, ('county 9', 'facility 18'): 5.408326913195984, ('county 9', 'facility 19'): 5.590169943749474, ('county 9', 'facility 20'): 3.5, ('county 9', 'facility 21'): 3.3541019662496847, ('county 9', 'facility 22'): 1.8027756377319948, ('county 9', 'facility 23'): 1.8027756377319948}
8 {'facility 15': temporary_facility_15, 'facility 16':
: temporary_facility_16, 'facility 17':
temporary_facility_17, 'facility 18':
temporary_facility_18, 'facility 19':
temporary_facility_19, 'facility 20':
temporary_facility_20, 'facility 21':
temporary_facility_21, 'facility 22':
temporary_facility_22, 'facility 23':
temporary_facility_23}
9 {('county 1', 'facility 1'): Num_county_1_facility_1
, ('county 1', 'facility 2'): Num_county_1_facility_2
, ('county 1', 'facility 3'): Num_county_1_facility_3
, ('county 1', 'facility 4'): Num_county_1_facility_4
, ('county 1', 'facility 5'): Num_county_1_facility_5
, ('county 1', 'facility 6'): Num_county_1_facility_6

```

```
9 , ('county 1', 'facility 7'): Num_county_1_facility_7
, ('county 1', 'facility 8'): Num_county_1_facility_8
, ('county 1', 'facility 9'): Num_county_1_facility_9
, ('county 1', 'facility 10'):
Num_county_1_facility_10, ('county 1', 'facility 11'):
Num_county_1_facility_11, ('county 1', 'facility 12'):
Num_county_1_facility_12, ('county 1', 'facility 13'):
Num_county_1_facility_13, ('county 1', 'facility 14'):
Num_county_1_facility_14, ('county 1', 'facility 15'):
Num_county_1_facility_15, ('county 1', 'facility 16'):
Num_county_1_facility_16, ('county 1', 'facility 17'):
Num_county_1_facility_17, ('county 1', 'facility 18'):
Num_county_1_facility_18, ('county 1', 'facility 19'):
Num_county_1_facility_19, ('county 1', 'facility 20'):
Num_county_1_facility_20, ('county 1', 'facility 21'):
Num_county_1_facility_21, ('county 1', 'facility 22'):
Num_county_1_facility_22, ('county 1', 'facility 23'):
Num_county_1_facility_23
, ('county 2', 'facility 1'): Num_county_2_facility_1
, ('county 2', 'facility 2'): Num_county_2_facility_2
, ('county 2', 'facility 3'): Num_county_2_facility_3
, ('county 2', 'facility 4'): Num_county_2_facility_4
, ('county 2', 'facility 5'): Num_county_2_facility_5
, ('county 2', 'facility 6'): Num_county_2_facility_6
, ('county 2', 'facility 7'): Num_county_2_facility_7
, ('county 2', 'facility 8'): Num_county_2_facility_8
, ('county 2', 'facility 9'): Num_county_2_facility_9
, ('county 2', 'facility 10'):
Num_county_2_facility_10, ('county 2', 'facility 11'):
Num_county_2_facility_11, ('county 2', 'facility 12'):
Num_county_2_facility_12, ('county 2', 'facility 13'):
Num_county_2_facility_13, ('county 2', 'facility 14'):
Num_county_2_facility_14, ('county 2', 'facility 15'):
Num_county_2_facility_15, ('county 2', 'facility 16'):
Num_county_2_facility_16, ('county 2', 'facility 17'):
Num_county_2_facility_17, ('county 2', 'facility 18'):
Num_county_2_facility_18, ('county 2', 'facility 19'):
Num_county_2_facility_19, ('county 2', 'facility 20'):
Num_county_2_facility_20, ('county 2'
```

```
9 ', 'facility 21'): Num_county_2_facility_21, ('county
  2', 'facility 22'): Num_county_2_facility_22, (''
county 2', 'facility 23'): Num_county_2_facility_23
, ('county 3', 'facility 1'): Num_county_3_facility_1
, ('county 3', 'facility 2'): Num_county_3_facility_2
, ('county 3', 'facility 3'): Num_county_3_facility_3
, ('county 3', 'facility 4'): Num_county_3_facility_4
, ('county 3', 'facility 5'): Num_county_3_facility_5
, ('county 3', 'facility 6'): Num_county_3_facility_6
, ('county 3', 'facility 7'): Num_county_3_facility_7
, ('county 3', 'facility 8'): Num_county_3_facility_8
, ('county 3', 'facility 9'): Num_county_3_facility_9
, ('county 3', 'facility 10'):
Num_county_3_facility_10, ('county 3', 'facility 11
'): Num_county_3_facility_11, ('county 3', 'facility
12'): Num_county_3_facility_12, ('county 3', '
facility 13'): Num_county_3_facility_13, ('county 3
', 'facility 14'): Num_county_3_facility_14, ('county
  3', 'facility 15'): Num_county_3_facility_15, (''
county 3', 'facility 16'): Num_county_3_facility_16
, ('county 3', 'facility 17'):
Num_county_3_facility_17, ('county 3', 'facility 18
'): Num_county_3_facility_18, ('county 3', 'facility
19'): Num_county_3_facility_19, ('county 3', '
facility 20'): Num_county_3_facility_20, ('county 3
', 'facility 21'): Num_county_3_facility_21, ('county
  3', 'facility 22'): Num_county_3_facility_22, (''
county 3', 'facility 23'): Num_county_3_facility_23
, ('county 4', 'facility 1'): Num_county_4_facility_1
, ('county 4', 'facility 2'): Num_county_4_facility_2
, ('county 4', 'facility 3'): Num_county_4_facility_3
, ('county 4', 'facility 4'): Num_county_4_facility_4
, ('county 4', 'facility 5'): Num_county_4_facility_5
, ('county 4', 'facility 6'): Num_county_4_facility_6
, ('county 4', 'facility 7'): Num_county_4_facility_7
, ('county 4', 'facility 8'): Num_county_4_facility_8
, ('county 4', 'facility 9'): Num_county_4_facility_9
, ('county 4', 'facility 10'):
Num_county_4_facility_10, ('county 4', 'facility 11
'): Num_county_4_facility_11, ('county 4', 'facility
12'): Num_county_4_facility_12, ('county 4', '
```

```
9 facility 13'): Num_county_4_facility_13, ('county 4
', 'facility 14'): Num_county_4_facility_14, ('county
4', 'facility 15'): Num_county_4_facility_15, (''
county 4', 'facility 16'): Num_county_4_facility_16
, ('county 4', 'facility 17'):
Num_county_4_facility_17, ('county 4', 'facility 18
'): Num_county_4_facility_18, ('county 4', 'facility
19'): Num_county_4_facility_19, ('county 4', ''
facility 20'): Num_county_4_facility_20, ('county 4
', 'facility 21'): Num_county_4_facility_21, ('county
4', 'facility 22'): Num_county_4_facility_22, (''
county 4', 'facility 23'): Num_county_4_facility_23
, ('county 5', 'facility 1'): Num_county_5_facility_1
, ('county 5', 'facility 2'): Num_county_5_facility_2
, ('county 5', 'facility 3'): Num_county_5_facility_3
, ('county 5', 'facility 4'): Num_county_5_facility_4
, ('county 5', 'facility 5'): Num_county_5_facility_5
, ('county 5', 'facility 6'): Num_county_5_facility_6
, ('county 5', 'facility 7'): Num_county_5_facility_7
, ('county 5', 'facility 8'): Num_county_5_facility_8
, ('county 5', 'facility 9'): Num_county_5_facility_9
, ('county 5', 'facility 10'):
Num_county_5_facility_10, ('county 5', 'facility 11
'): Num_county_5_facility_11, ('county 5', 'facility
12'): Num_county_5_facility_12, ('county 5', ''
facility 13'): Num_county_5_facility_13, ('county 5
', 'facility 14'): Num_county_5_facility_14, ('county
5', 'facility 15'): Num_county_5_facility_15, (''
county 5', 'facility 16'): Num_county_5_facility_16
, ('county 5', 'facility 17'):
Num_county_5_facility_17, ('county 5', 'facility 18
'): Num_county_5_facility_18, ('county 5', 'facility
19'): Num_county_5_facility_19, ('county 5', ''
facility 20'): Num_county_5_facility_20, ('county 5
', 'facility 21'): Num_county_5_facility_21, ('county
5', 'facility 22'): Num_county_5_facility_22, (''
county 5', 'facility 23'): Num_county_5_facility_23
, ('county 6', 'facility 1'): Num_county_6_facility_1
, ('county 6', 'facility 2'): Num_county_6_facility_2
, ('county 6', 'facility 3'): Num_county_6_facility_3
, ('county 6', 'facility 4'): Num_county_6_facility_4
```

```
9 , ('county 6', 'facility 5'): Num_county_6_facility_5
, ('county 6', 'facility 6'): Num_county_6_facility_6
, ('county 6', 'facility 7'): Num_county_6_facility_7
, ('county 6', 'facility 8'): Num_county_6_facility_8
, ('county 6', 'facility 9'): Num_county_6_facility_9
, ('county 6', 'facility 10'):
Num_county_6_facility_10, ('county 6', 'facility 11'):
Num_county_6_facility_11, ('county 6', 'facility 12'):
Num_county_6_facility_12, ('county 6', 'facility 13'):
Num_county_6_facility_13, ('county 6', 'facility 14'):
Num_county_6_facility_14, ('county 6', 'facility 15'):
Num_county_6_facility_15, ('county 6', 'facility 16'):
Num_county_6_facility_16
, ('county 6', 'facility 17'):
Num_county_6_facility_17, ('county 6', 'facility 18'):
Num_county_6_facility_18, ('county 6', 'facility 19'):
Num_county_6_facility_19, ('county 6', 'facility 20'):
Num_county_6_facility_20, ('county 6', 'facility 21'):
Num_county_6_facility_21, ('county 6', 'facility 22'):
Num_county_6_facility_22, ('county 6', 'facility 23'):
Num_county_6_facility_23
, ('county 7', 'facility 1'): Num_county_7_facility_1
, ('county 7', 'facility 2'): Num_county_7_facility_2
, ('county 7', 'facility 3'): Num_county_7_facility_3
, ('county 7', 'facility 4'): Num_county_7_facility_4
, ('county 7', 'facility 5'): Num_county_7_facility_5
, ('county 7', 'facility 6'): Num_county_7_facility_6
, ('county 7', 'facility 7'): Num_county_7_facility_7
, ('county 7', 'facility 8'): Num_county_7_facility_8
, ('county 7', 'facility 9'): Num_county_7_facility_9
, ('county 7', 'facility 10'):
Num_county_7_facility_10, ('county 7', 'facility 11'):
Num_county_7_facility_11, ('county 7', 'facility 12'):
Num_county_7_facility_12, ('county 7', 'facility 13'):
Num_county_7_facility_13, ('county 7', 'facility 14'):
Num_county_7_facility_14, ('county 7', 'facility 15'):
Num_county_7_facility_15, ('county 7', 'facility 16'):
Num_county_7_facility_16
, ('county 7', 'facility 17'):
Num_county_7_facility_17, ('county 7', 'facility 18'):
Num_county_7_facility_18, ('county 7', 'facility 19'):
```

```
9 19'): Num_county_7_facility_19, ('county 7', 'facility 20'): Num_county_7_facility_20, ('county 7', 'facility 21'): Num_county_7_facility_21, ('county 7', 'facility 22'): Num_county_7_facility_22, ('county 7', 'facility 23'): Num_county_7_facility_23, ('county 8', 'facility 1'): Num_county_8_facility_1, ('county 8', 'facility 2'): Num_county_8_facility_2, ('county 8', 'facility 3'): Num_county_8_facility_3, ('county 8', 'facility 4'): Num_county_8_facility_4, ('county 8', 'facility 5'): Num_county_8_facility_5, ('county 8', 'facility 6'): Num_county_8_facility_6, ('county 8', 'facility 7'): Num_county_8_facility_7, ('county 8', 'facility 8'): Num_county_8_facility_8, ('county 8', 'facility 9'): Num_county_8_facility_9, ('county 8', 'facility 10'): Num_county_8_facility_10, ('county 8', 'facility 11'): Num_county_8_facility_11, ('county 8', 'facility 12'): Num_county_8_facility_12, ('county 8', 'facility 13'): Num_county_8_facility_13, ('county 8', 'facility 14'): Num_county_8_facility_14, ('county 8', 'facility 15'): Num_county_8_facility_15, ('county 8', 'facility 16'): Num_county_8_facility_16, ('county 8', 'facility 17'): Num_county_8_facility_17, ('county 8', 'facility 18'): Num_county_8_facility_18, ('county 8', 'facility 19'): Num_county_8_facility_19, ('county 8', 'facility 20'): Num_county_8_facility_20, ('county 8', 'facility 21'): Num_county_8_facility_21, ('county 8', 'facility 22'): Num_county_8_facility_22, ('county 8', 'facility 23'): Num_county_8_facility_23, ('county 9', 'facility 1'): Num_county_9_facility_1, ('county 9', 'facility 2'): Num_county_9_facility_2, ('county 9', 'facility 3'): Num_county_9_facility_3, ('county 9', 'facility 4'): Num_county_9_facility_4, ('county 9', 'facility 5'): Num_county_9_facility_5, ('county 9', 'facility 6'): Num_county_9_facility_6, ('county 9', 'facility 7'): Num_county_9_facility_7, ('county 9', 'facility 8'): Num_county_9_facility_8, ('county 9', 'facility 9'): Num_county_9_facility_9, ('county 9', 'facility 10'): Num_county_9_facility_10, ('county 9', 'facility 11')
```

```

9 '): Num_county_9_facility_11, ('county 9', 'facility
12'): Num_county_9_facility_12, ('county 9', ' '
facility 13'): Num_county_9_facility_13, ('county 9
', 'facility 14'): Num_county_9_facility_14, ('county
9', 'facility 15'): Num_county_9_facility_15, (' '
county 9', 'facility 16'): Num_county_9_facility_16
, ('county 9', 'facility 17'):
Num_county_9_facility_17, ('county 9', 'facility 18
'): Num_county_9_facility_18, ('county 9', 'facility
19'): Num_county_9_facility_19, ('county 9', ' '
facility 20'): Num_county_9_facility_20, ('county 9
', 'facility 21'): Num_county_9_facility_21, ('county
9', 'facility 22'): Num_county_9_facility_22, (' '
county 9', 'facility 23'): Num_county_9_facility_23}
10 {'facility 15': Z_facility_15, 'facility 16':
Z_facility_16, 'facility 17': Z_facility_17, ' '
facility 18': Z_facility_18, 'facility 19':
Z_facility_19, 'facility 20': Z_facility_20, ' '
facility 21': Z_facility_21, 'facility 22':
Z_facility_22, 'facility 23': Z_facility_23}
11 Covid-19-Facility-Location-Problem:
12 MINIMIZE
13 2.5*Num_county_1_facility_1 + 40.078048854703496*
Num_county_1_facility_10 + 43.73213921133975*
Num_county_1_facility_11 + 38.160843806184374*
Num_county_1_facility_12 + 38.81043674065006*
Num_county_1_facility_13 + 45.069390943299865*
Num_county_1_facility_14 + 3.5355339059327378*
Num_county_1_facility_15 + 12.5*
Num_county_1_facility_16 + 23.048861143232223*
Num_county_1_facility_17 + 10.307764064044152*
Num_county_1_facility_18 + 13.462912017836262*
Num_county_1_facility_19 + 7.905694150420949*
Num_county_1_facility_2 + 23.048861143232216*
Num_county_1_facility_20 + 25.124689052802225*
Num_county_1_facility_21 + 27.95084971874737*
Num_county_1_facility_22 + 33.63406011768428*
Num_county_1_facility_23 + 20.155644370746373*
Num_county_1_facility_3 + 29.261749776799064*
Num_county_1_facility_4 + 17.5*
Num_county_1_facility_5 + 16.00781059358212*

```

13	Num_county_1_facility_6 + 23.584952830141507*
	Num_county_1_facility_7 + 34.00367627183861*
	Num_county_1_facility_8 + 35.0*
	Num_county_1_facility_9 + 11.180339887498949*
	Num_county_2_facility_1 + 43.15669125408017*
	Num_county_2_facility_10 + 37.16517186829626*
	Num_county_2_facility_11 + 36.40054944640259*
	Num_county_2_facility_12 + 40.0*
	Num_county_2_facility_13 + 42.720018726587654*
	Num_county_2_facility_14 + 7.5*
	Num_county_2_facility_15 + 3.5355339059327378*
	Num_county_2_facility_16 + 14.57737973711325*
	Num_county_2_facility_17 + 14.57737973711325*
	Num_county_2_facility_18 + 7.905694150420949*
	Num_county_2_facility_19 + 2.5*
	Num_county_2_facility_2 + 19.03943276465977*
	Num_county_2_facility_20 + 28.50438562747845*
	Num_county_2_facility_21 + 27.613402542968153*
	Num_county_2_facility_22 + 30.207614933986427*
	Num_county_2_facility_23 + 10.0*
	Num_county_2_facility_3 + 21.50581316760657*
	Num_county_2_facility_4 + 22.360679774997898*
	Num_county_2_facility_5 + 15.0*
	Num_county_2_facility_6 + 18.027756377319946*
	Num_county_2_facility_7 + 28.50438562747845*
	Num_county_2_facility_8 + 38.81043674065006*
	Num_county_2_facility_9 + 22.638462845343543*
	Num_county_3_facility_1 + 44.721359549995796*
	Num_county_3_facility_10 + 27.041634565979923*
	Num_county_3_facility_11 + 32.59601202601325*
	Num_county_3_facility_12 + 39.528470752104745*
	Num_county_3_facility_13 + 37.583240945932275*
	Num_county_3_facility_14 + 20.155644370746373*
	Num_county_3_facility_15 + 10.0*
	Num_county_3_facility_16 + 5.0*
	Num_county_3_facility_17 + 22.360679774997898*
	Num_county_3_facility_18 + 11.180339887498949*
	Num_county_3_facility_19 + 15.206906325745546*
	Num_county_3_facility_2 + 15.811388300841898*
	Num_county_3_facility_20 + 32.01562118716424*
	Num_county_3_facility_21 + 26.925824035672523*

```

13 Num_county_3_facility_22 + 25.0*
  Num_county_3_facility_23 + 3.5355339059327378*
  Num_county_3_facility_3 + 11.180339887498949*
  Num_county_3_facility_4 + 28.50438562747845*
  Num_county_3_facility_5 + 17.67766952966369*
  Num_county_3_facility_6 + 12.747548783981964*
  Num_county_3_facility_7 + 20.615528128088304*
  Num_county_3_facility_8 + 41.608292442733095*
  Num_county_3_facility_9 + 12.5*
  Num_county_4_facility_1 + 25.124689052802225*
  Num_county_4_facility_10 + 38.242646351945886*
  Num_county_4_facility_11 + 26.575364531836627*
  Num_county_4_facility_12 + 24.622144504490258*
  Num_county_4_facility_13 + 33.63406011768428*
  Num_county_4_facility_14 + 17.67766952966369*
  Num_county_4_facility_15 + 19.52562418976664*
  Num_county_4_facility_16 + 24.622144504490258*
  Num_county_4_facility_17 + 5.5901699437494745*
  Num_county_4_facility_18 + 16.00781059358212*
  Num_county_4_facility_19 + 19.03943276465977*
  Num_county_4_facility_2 + 17.5*
  Num_county_4_facility_20 + 10.307764064044152*
  Num_county_4_facility_21 + 16.00781059358212*
  Num_county_4_facility_22 + 24.622144504490258*
  Num_county_4_facility_23 + 26.575364531836627*
  Num_county_4_facility_3 + 27.950849718747367*
  Num_county_4_facility_4 + 2.5*Num_county_4_facility_5
    + 10.307764064044152*Num_county_4_facility_6 + 20.
  155644370746373*Num_county_4_facility_7 + 27.
  950849718747367*Num_county_4_facility_8 + 20.0*
  Num_county_4_facility_9 + 12.5*
  Num_county_5_facility_1 + 30.92329219213245*
  Num_county_5_facility_10 + 30.207614933986427*
  Num_county_5_facility_11 + 24.622144504490258*
  Num_county_5_facility_12 + 27.5*
  Num_county_5_facility_13 + 31.32491021535417*
  Num_county_5_facility_14 + 14.57737973711325*
  Num_county_5_facility_15 + 10.307764064044152*
  Num_county_5_facility_16 + 13.462912017836262*
  Num_county_5_facility_17 + 7.5*
  Num_county_5_facility_18 + 5.5901699437494745*

```

```

13 Num_county_5_facility_19 + 12.747548783981964*
  Num_county_5_facility_2 + 9.013878188659973*
  Num_county_5_facility_20 + 16.770509831248425*
  Num_county_5_facility_21 + 15.206906325745546*
  Num_county_5_facility_22 + 19.52562418976664*
  Num_county_5_facility_23 + 16.00781059358212*
  Num_county_5_facility_3 + 17.5*
  Num_county_5_facility_4 + 12.5*
  Num_county_5_facility_5 + 2.5*Num_county_5_facility_6
    + 10.307764064044152*Num_county_5_facility_7 + 20.
155644370746373*Num_county_5_facility_8 + 26.
925824035672523*Num_county_5_facility_9 + 25.
739075352467502*Num_county_6_facility_1 + 32.
01562118716424*Num_county_6_facility_10 + 16.
770509831248425*Num_county_6_facility_11 + 17.
67766952966369*Num_county_6_facility_12 + 25.
739075352467502*Num_county_6_facility_13 + 22.
638462845343543*Num_county_6_facility_14 + 26.
575364531836627*Num_county_6_facility_15 + 18.
027756377319946*Num_county_6_facility_16 + 10.0*
  Num_county_6_facility_17 + 20.615528128088304*
  Num_county_6_facility_18 + 14.142135623730951*
  Num_county_6_facility_19 + 23.048861143232216*
  Num_county_6_facility_2 + 5.0*
  Num_county_6_facility_20 + 22.360679774997898*
  Num_county_6_facility_21 + 14.142135623730951*
  Num_county_6_facility_22 + 10.0*
  Num_county_6_facility_23 + 17.67766952966369*
  Num_county_6_facility_3 + 7.0710678118654755*
  Num_county_6_facility_4 + 22.638462845343543*
  Num_county_6_facility_5 + 12.747548783981964*
  Num_county_6_facility_6 + 3.5355339059327378*
  Num_county_6_facility_7 + 7.0710678118654755*
  Num_county_6_facility_8 + 30.10398644698074*
  Num_county_6_facility_9 + 30.0*
  Num_county_7_facility_1 + 7.905694150420949*
  Num_county_7_facility_10 + 38.81043674065006*
  Num_county_7_facility_11 + 20.0*
  Num_county_7_facility_12 + 11.180339887498949*
  Num_county_7_facility_13 + 25.495097567963928*
  Num_county_7_facility_14 + 35.0891721190455*

```

13	Num_county_7_facility_15 + 34.8209706929603*
	Num_county_7_facility_16 + 35.53167600887974*
	Num_county_7_facility_17 + 22.638462845343543*
	Num_county_7_facility_18 + 30.207614933986427*
	Num_county_7_facility_19 + 35.79455265819088*
	Num_county_7_facility_2 + 24.748737341529164*
	Num_county_7_facility_20 + 7.905694150420949*
	Num_county_7_facility_21 + 14.57737973711325*
	Num_county_7_facility_22 + 23.717082451262847*
	Num_county_7_facility_23 + 40.311288741492746*
	Num_county_7_facility_3 + 35.53167600887974*
	Num_county_7_facility_4 + 15.0*
	Num_county_7_facility_5 + 22.360679774997898*
	Num_county_7_facility_6 + 28.284271247461902*
	Num_county_7_facility_7 + 30.207614933986427*
	Num_county_7_facility_8 + 2.5*Num_county_7_facility_9 + 22.360679774997898*Num_county_8_facility_1 + 19.
	03943276465977*Num_county_8_facility_10 + 27.5*
	Num_county_8_facility_11 + 14.142135623730951*
	Num_county_8_facility_12 + 15.0*
	Num_county_8_facility_13 + 21.213203435596427*
	Num_county_8_facility_14 + 26.100766272276378*
	Num_county_8_facility_15 + 22.638462845343543*
	Num_county_8_facility_16 + 21.50581316760657*
	Num_county_8_facility_17 + 14.57737973711325*
	Num_county_8_facility_18 + 17.67766952966369*
	Num_county_8_facility_19 + 25.124689052802225*
	Num_county_8_facility_2 + 10.606601717798213*
	Num_county_8_facility_20 + 7.905694150420949*
	Num_county_8_facility_21 + 3.5355339059327378*
	Num_county_8_facility_22 + 12.747548783981964*
	Num_county_8_facility_23 + 26.925824035672523*
	Num_county_8_facility_3 + 21.50581316760657*
	Num_county_8_facility_4 + 11.180339887498949*
	Num_county_8_facility_5 + 10.0*
	Num_county_8_facility_6 + 14.142135623730951*
	Num_county_8_facility_7 + 17.67766952966369*
	Num_county_8_facility_8 + 16.00781059358212*
	Num_county_8_facility_9 + 34.73110997362451*
	Num_county_9_facility_1 + 16.770509831248425*
	Num_county_9_facility_10 + 22.360679774997898*

```

13 Num_county_9_facility_11 + 2.5*
  Num_county_9_facility_12 + 9.013878188659973*
  Num_county_9_facility_13 + 9.013878188659973*
  Num_county_9_facility_14 + 38.07886552931954*
  Num_county_9_facility_15 + 32.88236609491476*
  Num_county_9_facility_16 + 27.950849718747367*
  Num_county_9_facility_17 + 27.041634565979923*
  Num_county_9_facility_18 + 27.950849718747367*
  Num_county_9_facility_19 + 36.40054944640259*
  Num_county_9_facility_2 + 17.5*
  Num_county_9_facility_20 + 16.770509831248425*
  Num_county_9_facility_21 + 9.013878188659973*
  Num_county_9_facility_22 + 9.013878188659973*
  Num_county_9_facility_23 + 35.0891721190455*
  Num_county_9_facility_3 + 24.622144504490258*
  Num_county_9_facility_4 + 23.048861143232216*
  Num_county_9_facility_5 + 21.360009363293827*
  Num_county_9_facility_6 + 20.155644370746373*
  Num_county_9_facility_7 + 16.00781059358212*
  Num_county_9_facility_8 + 17.67766952966369*
  Num_county_9_facility_9 + 1809390*Z_facility_15 +
  1809390*Z_facility_16 + 1809390*Z_facility_17 +
  1809390*Z_facility_18 + 1809390*Z_facility_19 +
  1809390*Z_facility_20 + 1809390*Z_facility_21 +
  1809390*Z_facility_22 + 1809390*Z_facility_23 +
  500000*temporary_facility_15 + 500000*
  temporary_facility_16 + 500000*temporary_facility_17
  + 500000*temporary_facility_18 + 500000*
  temporary_facility_19 + 500000*temporary_facility_20
  + 500000*temporary_facility_21 + 500000*
  temporary_facility_22 + 500000*temporary_facility_23
  + 0.0
14 VARIABLES
15 Num_county_1_facility_1 Continuous
16 Num_county_1_facility_10 Continuous
17 Num_county_1_facility_11 Continuous
18 Num_county_1_facility_12 Continuous
19 Num_county_1_facility_13 Continuous
20 Num_county_1_facility_14 Continuous
21 Num_county_1_facility_15 Continuous
22 Num_county_1_facility_16 Continuous

```

23	Num_county_1_facility_17	Continuous
24	Num_county_1_facility_18	Continuous
25	Num_county_1_facility_19	Continuous
26	Num_county_1_facility_2	Continuous
27	Num_county_1_facility_20	Continuous
28	Num_county_1_facility_21	Continuous
29	Num_county_1_facility_22	Continuous
30	Num_county_1_facility_23	Continuous
31	Num_county_1_facility_3	Continuous
32	Num_county_1_facility_4	Continuous
33	Num_county_1_facility_5	Continuous
34	Num_county_1_facility_6	Continuous
35	Num_county_1_facility_7	Continuous
36	Num_county_1_facility_8	Continuous
37	Num_county_1_facility_9	Continuous
38	Num_county_2_facility_1	Continuous
39	Num_county_2_facility_10	Continuous
40	Num_county_2_facility_11	Continuous
41	Num_county_2_facility_12	Continuous
42	Num_county_2_facility_13	Continuous
43	Num_county_2_facility_14	Continuous
44	Num_county_2_facility_15	Continuous
45	Num_county_2_facility_16	Continuous
46	Num_county_2_facility_17	Continuous
47	Num_county_2_facility_18	Continuous
48	Num_county_2_facility_19	Continuous
49	Num_county_2_facility_2	Continuous
50	Num_county_2_facility_20	Continuous
51	Num_county_2_facility_21	Continuous
52	Num_county_2_facility_22	Continuous
53	Num_county_2_facility_23	Continuous
54	Num_county_2_facility_3	Continuous
55	Num_county_2_facility_4	Continuous
56	Num_county_2_facility_5	Continuous
57	Num_county_2_facility_6	Continuous
58	Num_county_2_facility_7	Continuous
59	Num_county_2_facility_8	Continuous
60	Num_county_2_facility_9	Continuous
61	Num_county_3_facility_1	Continuous
62	Num_county_3_facility_10	Continuous
63	Num_county_3_facility_11	Continuous

64	Num_county_3_facility_12	Continuous
65	Num_county_3_facility_13	Continuous
66	Num_county_3_facility_14	Continuous
67	Num_county_3_facility_15	Continuous
68	Num_county_3_facility_16	Continuous
69	Num_county_3_facility_17	Continuous
70	Num_county_3_facility_18	Continuous
71	Num_county_3_facility_19	Continuous
72	Num_county_3_facility_2	Continuous
73	Num_county_3_facility_20	Continuous
74	Num_county_3_facility_21	Continuous
75	Num_county_3_facility_22	Continuous
76	Num_county_3_facility_23	Continuous
77	Num_county_3_facility_3	Continuous
78	Num_county_3_facility_4	Continuous
79	Num_county_3_facility_5	Continuous
80	Num_county_3_facility_6	Continuous
81	Num_county_3_facility_7	Continuous
82	Num_county_3_facility_8	Continuous
83	Num_county_3_facility_9	Continuous
84	Num_county_4_facility_1	Continuous
85	Num_county_4_facility_10	Continuous
86	Num_county_4_facility_11	Continuous
87	Num_county_4_facility_12	Continuous
88	Num_county_4_facility_13	Continuous
89	Num_county_4_facility_14	Continuous
90	Num_county_4_facility_15	Continuous
91	Num_county_4_facility_16	Continuous
92	Num_county_4_facility_17	Continuous
93	Num_county_4_facility_18	Continuous
94	Num_county_4_facility_19	Continuous
95	Num_county_4_facility_2	Continuous
96	Num_county_4_facility_20	Continuous
97	Num_county_4_facility_21	Continuous
98	Num_county_4_facility_22	Continuous
99	Num_county_4_facility_23	Continuous
100	Num_county_4_facility_3	Continuous
101	Num_county_4_facility_4	Continuous
102	Num_county_4_facility_5	Continuous
103	Num_county_4_facility_6	Continuous
104	Num_county_4_facility_7	Continuous

105	Num_county_4_facility_8	Continuous
106	Num_county_4_facility_9	Continuous
107	Num_county_5_facility_1	Continuous
108	Num_county_5_facility_10	Continuous
109	Num_county_5_facility_11	Continuous
110	Num_county_5_facility_12	Continuous
111	Num_county_5_facility_13	Continuous
112	Num_county_5_facility_14	Continuous
113	Num_county_5_facility_15	Continuous
114	Num_county_5_facility_16	Continuous
115	Num_county_5_facility_17	Continuous
116	Num_county_5_facility_18	Continuous
117	Num_county_5_facility_19	Continuous
118	Num_county_5_facility_2	Continuous
119	Num_county_5_facility_20	Continuous
120	Num_county_5_facility_21	Continuous
121	Num_county_5_facility_22	Continuous
122	Num_county_5_facility_23	Continuous
123	Num_county_5_facility_3	Continuous
124	Num_county_5_facility_4	Continuous
125	Num_county_5_facility_5	Continuous
126	Num_county_5_facility_6	Continuous
127	Num_county_5_facility_7	Continuous
128	Num_county_5_facility_8	Continuous
129	Num_county_5_facility_9	Continuous
130	Num_county_6_facility_1	Continuous
131	Num_county_6_facility_10	Continuous
132	Num_county_6_facility_11	Continuous
133	Num_county_6_facility_12	Continuous
134	Num_county_6_facility_13	Continuous
135	Num_county_6_facility_14	Continuous
136	Num_county_6_facility_15	Continuous
137	Num_county_6_facility_16	Continuous
138	Num_county_6_facility_17	Continuous
139	Num_county_6_facility_18	Continuous
140	Num_county_6_facility_19	Continuous
141	Num_county_6_facility_2	Continuous
142	Num_county_6_facility_20	Continuous
143	Num_county_6_facility_21	Continuous
144	Num_county_6_facility_22	Continuous
145	Num_county_6_facility_23	Continuous

146	Num_county_6_facility_3	Continuous
147	Num_county_6_facility_4	Continuous
148	Num_county_6_facility_5	Continuous
149	Num_county_6_facility_6	Continuous
150	Num_county_6_facility_7	Continuous
151	Num_county_6_facility_8	Continuous
152	Num_county_6_facility_9	Continuous
153	Num_county_7_facility_1	Continuous
154	Num_county_7_facility_10	Continuous
155	Num_county_7_facility_11	Continuous
156	Num_county_7_facility_12	Continuous
157	Num_county_7_facility_13	Continuous
158	Num_county_7_facility_14	Continuous
159	Num_county_7_facility_15	Continuous
160	Num_county_7_facility_16	Continuous
161	Num_county_7_facility_17	Continuous
162	Num_county_7_facility_18	Continuous
163	Num_county_7_facility_19	Continuous
164	Num_county_7_facility_2	Continuous
165	Num_county_7_facility_20	Continuous
166	Num_county_7_facility_21	Continuous
167	Num_county_7_facility_22	Continuous
168	Num_county_7_facility_23	Continuous
169	Num_county_7_facility_3	Continuous
170	Num_county_7_facility_4	Continuous
171	Num_county_7_facility_5	Continuous
172	Num_county_7_facility_6	Continuous
173	Num_county_7_facility_7	Continuous
174	Num_county_7_facility_8	Continuous
175	Num_county_7_facility_9	Continuous
176	Num_county_8_facility_1	Continuous
177	Num_county_8_facility_10	Continuous
178	Num_county_8_facility_11	Continuous
179	Num_county_8_facility_12	Continuous
180	Num_county_8_facility_13	Continuous
181	Num_county_8_facility_14	Continuous
182	Num_county_8_facility_15	Continuous
183	Num_county_8_facility_16	Continuous
184	Num_county_8_facility_17	Continuous
185	Num_county_8_facility_18	Continuous
186	Num_county_8_facility_19	Continuous

187	Num_county_8_facility_2	Continuous
188	Num_county_8_facility_20	Continuous
189	Num_county_8_facility_21	Continuous
190	Num_county_8_facility_22	Continuous
191	Num_county_8_facility_23	Continuous
192	Num_county_8_facility_3	Continuous
193	Num_county_8_facility_4	Continuous
194	Num_county_8_facility_5	Continuous
195	Num_county_8_facility_6	Continuous
196	Num_county_8_facility_7	Continuous
197	Num_county_8_facility_8	Continuous
198	Num_county_8_facility_9	Continuous
199	Num_county_9_facility_1	Continuous
200	Num_county_9_facility_10	Continuous
201	Num_county_9_facility_11	Continuous
202	Num_county_9_facility_12	Continuous
203	Num_county_9_facility_13	Continuous
204	Num_county_9_facility_14	Continuous
205	Num_county_9_facility_15	Continuous
206	Num_county_9_facility_16	Continuous
207	Num_county_9_facility_17	Continuous
208	Num_county_9_facility_18	Continuous
209	Num_county_9_facility_19	Continuous
210	Num_county_9_facility_2	Continuous
211	Num_county_9_facility_20	Continuous
212	Num_county_9_facility_21	Continuous
213	Num_county_9_facility_22	Continuous
214	Num_county_9_facility_23	Continuous
215	Num_county_9_facility_3	Continuous
216	Num_county_9_facility_4	Continuous
217	Num_county_9_facility_5	Continuous
218	Num_county_9_facility_6	Continuous
219	Num_county_9_facility_7	Continuous
220	Num_county_9_facility_8	Continuous
221	Num_county_9_facility_9	Continuous
222	Z_facility_15	Continuous
223	Z_facility_16	Continuous
224	Z_facility_17	Continuous
225	Z_facility_18	Continuous
226	Z_facility_19	Continuous
227	Z_facility_20	Continuous

```

228 Z_facility_21 Continuous
229 Z_facility_22 Continuous
230 Z_facility_23 Continuous
231 0 <= temporary_facility_15 <= 1 Integer
232 0 <= temporary_facility_16 <= 1 Integer
233 0 <= temporary_facility_17 <= 1 Integer
234 0 <= temporary_facility_18 <= 1 Integer
235 0 <= temporary_facility_19 <= 1 Integer
236 0 <= temporary_facility_20 <= 1 Integer
237 0 <= temporary_facility_21 <= 1 Integer
238 0 <= temporary_facility_22 <= 1 Integer
239 0 <= temporary_facility_23 <= 1 Integer
240
241 Covid-19-Facility-Location-Problem:
242 MINIMIZE
243 2.5*Num_county_1_facility_1 + 40.078048854703496*
   Num_county_1_facility_10 + 43.73213921133975*
   Num_county_1_facility_11 + 38.160843806184374*
   Num_county_1_facility_12 + 38.81043674065006*
   Num_county_1_facility_13 + 45.069390943299865*
   Num_county_1_facility_14 + 3.5355339059327378*
   Num_county_1_facility_15 + 12.5*
   Num_county_1_facility_16 + 23.048861143232223*
   Num_county_1_facility_17 + 10.307764064044152*
   Num_county_1_facility_18 + 13.462912017836262*
   Num_county_1_facility_19 + 7.905694150420949*
   Num_county_1_facility_2 + 23.048861143232216*
   Num_county_1_facility_20 + 25.124689052802225*
   Num_county_1_facility_21 + 27.95084971874737*
   Num_county_1_facility_22 + 33.63406011768428*
   Num_county_1_facility_23 + 20.155644370746373*
   Num_county_1_facility_3 + 29.261749776799064*
   Num_county_1_facility_4 + 17.5*
   Num_county_1_facility_5 + 16.00781059358212*
   Num_county_1_facility_6 + 23.584952830141507*
   Num_county_1_facility_7 + 34.00367627183861*
   Num_county_1_facility_8 + 35.0*
   Num_county_1_facility_9 + 11.180339887498949*
   Num_county_2_facility_1 + 43.15669125408017*
   Num_county_2_facility_10 + 37.16517186829626*
   Num_county_2_facility_11 + 36.40054944640259*

```

```

243 Num_county_2_facility_12 + 40.0*
    Num_county_2_facility_13 + 42.720018726587654*
    Num_county_2_facility_14 + 7.5*
    Num_county_2_facility_15 + 3.5355339059327378*
    Num_county_2_facility_16 + 14.57737973711325*
    Num_county_2_facility_17 + 14.57737973711325*
    Num_county_2_facility_18 + 7.905694150420949*
    Num_county_2_facility_19 + 2.5*
    Num_county_2_facility_2 + 19.03943276465977*
    Num_county_2_facility_20 + 28.50438562747845*
    Num_county_2_facility_21 + 27.613402542968153*
    Num_county_2_facility_22 + 30.207614933986427*
    Num_county_2_facility_23 + 10.0*
    Num_county_2_facility_3 + 21.50581316760657*
    Num_county_2_facility_4 + 22.360679774997898*
    Num_county_2_facility_5 + 15.0*
    Num_county_2_facility_6 + 18.027756377319946*
    Num_county_2_facility_7 + 28.50438562747845*
    Num_county_2_facility_8 + 38.81043674065006*
    Num_county_2_facility_9 + 22.638462845343543*
    Num_county_3_facility_1 + 44.721359549995796*
    Num_county_3_facility_10 + 27.041634565979923*
    Num_county_3_facility_11 + 32.59601202601325*
    Num_county_3_facility_12 + 39.528470752104745*
    Num_county_3_facility_13 + 37.583240945932275*
    Num_county_3_facility_14 + 20.155644370746373*
    Num_county_3_facility_15 + 10.0*
    Num_county_3_facility_16 + 5.0*
    Num_county_3_facility_17 + 22.360679774997898*
    Num_county_3_facility_18 + 11.180339887498949*
    Num_county_3_facility_19 + 15.206906325745546*
    Num_county_3_facility_2 + 15.811388300841898*
    Num_county_3_facility_20 + 32.01562118716424*
    Num_county_3_facility_21 + 26.925824035672523*
    Num_county_3_facility_22 + 25.0*
    Num_county_3_facility_23 + 3.5355339059327378*
    Num_county_3_facility_3 + 11.180339887498949*
    Num_county_3_facility_4 + 28.50438562747845*
    Num_county_3_facility_5 + 17.67766952966369*
    Num_county_3_facility_6 + 12.747548783981964*
    Num_county_3_facility_7 + 20.615528128088304*

```

243	Num_county_3_facility_8 + 41.608292442733095*
	Num_county_3_facility_9 + 12.5*
	Num_county_4_facility_1 + 25.124689052802225*
	Num_county_4_facility_10 + 38.242646351945886*
	Num_county_4_facility_11 + 26.575364531836627*
	Num_county_4_facility_12 + 24.622144504490258*
	Num_county_4_facility_13 + 33.63406011768428*
	Num_county_4_facility_14 + 17.67766952966369*
	Num_county_4_facility_15 + 19.52562418976664*
	Num_county_4_facility_16 + 24.622144504490258*
	Num_county_4_facility_17 + 5.5901699437494745*
	Num_county_4_facility_18 + 16.00781059358212*
	Num_county_4_facility_19 + 19.03943276465977*
	Num_county_4_facility_2 + 17.5*
	Num_county_4_facility_20 + 10.307764064044152*
	Num_county_4_facility_21 + 16.00781059358212*
	Num_county_4_facility_22 + 24.622144504490258*
	Num_county_4_facility_23 + 26.575364531836627*
	Num_county_4_facility_3 + 27.950849718747367*
	Num_county_4_facility_4 + 2.5*
	Num_county_4_facility_5 + 10.307764064044152*
	Num_county_4_facility_6 + 20.155644370746373*
	Num_county_4_facility_7 + 27.950849718747367*
	Num_county_4_facility_8 + 20.0*
	Num_county_4_facility_9 + 12.5*
	Num_county_5_facility_1 + 30.92329219213245*
	Num_county_5_facility_10 + 30.207614933986427*
	Num_county_5_facility_11 + 24.622144504490258*
	Num_county_5_facility_12 + 27.5*
	Num_county_5_facility_13 + 31.32491021535417*
	Num_county_5_facility_14 + 14.57737973711325*
	Num_county_5_facility_15 + 10.307764064044152*
	Num_county_5_facility_16 + 13.462912017836262*
	Num_county_5_facility_17 + 7.5*
	Num_county_5_facility_18 + 5.5901699437494745*
	Num_county_5_facility_19 + 12.747548783981964*
	Num_county_5_facility_2 + 9.013878188659973*
	Num_county_5_facility_20 + 16.770509831248425*
	Num_county_5_facility_21 + 15.206906325745546*
	Num_county_5_facility_22 + 19.52562418976664*
	Num_county_5_facility_23 + 16.00781059358212*

```

243 Num_county_5_facility_3 + 17.5*
    Num_county_5_facility_4 + 12.5*
    Num_county_5_facility_5 + 2.5*
    Num_county_5_facility_6 + 10.307764064044152*
    Num_county_5_facility_7 + 20.155644370746373*
    Num_county_5_facility_8 + 26.925824035672523*
    Num_county_5_facility_9 + 25.739075352467502*
    Num_county_6_facility_1 + 32.01562118716424*
    Num_county_6_facility_10 + 16.770509831248425*
    Num_county_6_facility_11 + 17.67766952966369*
    Num_county_6_facility_12 + 25.739075352467502*
    Num_county_6_facility_13 + 22.638462845343543*
    Num_county_6_facility_14 + 26.575364531836627*
    Num_county_6_facility_15 + 18.027756377319946*
    Num_county_6_facility_16 + 10.0*
    Num_county_6_facility_17 + 20.615528128088304*
    Num_county_6_facility_18 + 14.142135623730951*
    Num_county_6_facility_19 + 23.048861143232216*
    Num_county_6_facility_2 + 5.0*
    Num_county_6_facility_20 + 22.360679774997898*
    Num_county_6_facility_21 + 14.142135623730951*
    Num_county_6_facility_22 + 10.0*
    Num_county_6_facility_23 + 17.67766952966369*
    Num_county_6_facility_3 + 7.0710678118654755*
    Num_county_6_facility_4 + 22.638462845343543*
    Num_county_6_facility_5 + 12.747548783981964*
    Num_county_6_facility_6 + 3.5355339059327378*
    Num_county_6_facility_7 + 7.0710678118654755*
    Num_county_6_facility_8 + 30.10398644698074*
    Num_county_6_facility_9 + 30.0*
    Num_county_7_facility_1 + 7.905694150420949*
    Num_county_7_facility_10 + 38.81043674065006*
    Num_county_7_facility_11 + 20.0*
    Num_county_7_facility_12 + 11.180339887498949*
    Num_county_7_facility_13 + 25.495097567963928*
    Num_county_7_facility_14 + 35.0891721190455*
    Num_county_7_facility_15 + 34.8209706929603*
    Num_county_7_facility_16 + 35.53167600887974*
    Num_county_7_facility_17 + 22.638462845343543*
    Num_county_7_facility_18 + 30.207614933986427*
    Num_county_7_facility_19 + 35.79455265819088*

```

243	Num_county_7_facility_2 + 24.748737341529164*
	Num_county_7_facility_20 + 7.905694150420949*
	Num_county_7_facility_21 + 14.57737973711325*
	Num_county_7_facility_22 + 23.717082451262847*
	Num_county_7_facility_23 + 40.311288741492746*
	Num_county_7_facility_3 + 35.53167600887974*
	Num_county_7_facility_4 + 15.0*
	Num_county_7_facility_5 + 22.360679774997898*
	Num_county_7_facility_6 + 28.284271247461902*
	Num_county_7_facility_7 + 30.207614933986427*
	Num_county_7_facility_8 + 2.5*
	Num_county_7_facility_9 + 22.360679774997898*
	Num_county_8_facility_1 + 19.03943276465977*
	Num_county_8_facility_10 + 27.5*
	Num_county_8_facility_11 + 14.142135623730951*
	Num_county_8_facility_12 + 15.0*
	Num_county_8_facility_13 + 21.213203435596427*
	Num_county_8_facility_14 + 26.100766272276378*
	Num_county_8_facility_15 + 22.638462845343543*
	Num_county_8_facility_16 + 21.50581316760657*
	Num_county_8_facility_17 + 14.57737973711325*
	Num_county_8_facility_18 + 17.67766952966369*
	Num_county_8_facility_19 + 25.124689052802225*
	Num_county_8_facility_2 + 10.606601717798213*
	Num_county_8_facility_20 + 7.905694150420949*
	Num_county_8_facility_21 + 3.5355339059327378*
	Num_county_8_facility_22 + 12.747548783981964*
	Num_county_8_facility_23 + 26.925824035672523*
	Num_county_8_facility_3 + 21.50581316760657*
	Num_county_8_facility_4 + 11.180339887498949*
	Num_county_8_facility_5 + 10.0*
	Num_county_8_facility_6 + 14.142135623730951*
	Num_county_8_facility_7 + 17.67766952966369*
	Num_county_8_facility_8 + 16.00781059358212*
	Num_county_8_facility_9 + 34.73110997362451*
	Num_county_9_facility_1 + 16.770509831248425*
	Num_county_9_facility_10 + 22.360679774997898*
	Num_county_9_facility_11 + 2.5*
	Num_county_9_facility_12 + 9.013878188659973*
	Num_county_9_facility_13 + 9.013878188659973*
	Num_county_9_facility_14 + 38.07886552931954*

```

243 Num_county_9_facility_15 + 32.88236609491476*
    Num_county_9_facility_16 + 27.950849718747367*
    Num_county_9_facility_17 + 27.041634565979923*
    Num_county_9_facility_18 + 27.950849718747367*
    Num_county_9_facility_19 + 36.40054944640259*
    Num_county_9_facility_2 + 17.5*
    Num_county_9_facility_20 + 16.770509831248425*
    Num_county_9_facility_21 + 9.013878188659973*
    Num_county_9_facility_22 + 9.013878188659973*
    Num_county_9_facility_23 + 35.0891721190455*
    Num_county_9_facility_3 + 24.622144504490258*
    Num_county_9_facility_4 + 23.048861143232216*
    Num_county_9_facility_5 + 21.360009363293827*
    Num_county_9_facility_6 + 20.155644370746373*
    Num_county_9_facility_7 + 16.00781059358212*
    Num_county_9_facility_8 + 17.67766952966369*
    Num_county_9_facility_9 + 1809390*Z_facility_15 +
    1809390*Z_facility_16 + 1809390*Z_facility_17 +
    1809390*Z_facility_18 + 1809390*Z_facility_19 +
    1809390*Z_facility_20 + 1809390*Z_facility_21 +
    1809390*Z_facility_22 + 1809390*Z_facility_23 +
    500000*temporary_facility_15 + 500000*
    temporary_facility_16 + 500000*temporary_facility_17
    + 500000*temporary_facility_18 + 500000*
    temporary_facility_19 + 500000*temporary_facility_20
    + 500000*temporary_facility_21 + 500000*
    temporary_facility_22 + 500000*temporary_facility_23
    + 0.0
244 SUBJECT TO
245 _C1: Num_county_1_facility_1 +
    Num_county_1_facility_10
246 + Num_county_1_facility_11 +
    Num_county_1_facility_12
247 + Num_county_1_facility_13 +
    Num_county_1_facility_14
248 + Num_county_1_facility_15 +
    Num_county_1_facility_16
249 + Num_county_1_facility_17 +
    Num_county_1_facility_18
250 + Num_county_1_facility_19 +
    Num_county_1_facility_2

```

```
251 + Num_county_1_facility_20 +
    Num_county_1_facility_21
252 + Num_county_1_facility_22 +
    Num_county_1_facility_23
253 + Num_county_1_facility_3 + Num_county_1_facility_4
    + Num_county_1_facility_5
254 + Num_county_1_facility_6 + Num_county_1_facility_7
    + Num_county_1_facility_8
255 + Num_county_1_facility_9 = 351
256
257 _C2: Num_county_2_facility_1 +
    Num_county_2_facility_10
258 + Num_county_2_facility_11 +
    Num_county_2_facility_12
259 + Num_county_2_facility_13 +
    Num_county_2_facility_14
260 + Num_county_2_facility_15 +
    Num_county_2_facility_16
261 + Num_county_2_facility_17 +
    Num_county_2_facility_18
262 + Num_county_2_facility_19 +
    Num_county_2_facility_2
263 + Num_county_2_facility_20 +
    Num_county_2_facility_21
264 + Num_county_2_facility_22 +
    Num_county_2_facility_23
265 + Num_county_2_facility_3 + Num_county_2_facility_4
    + Num_county_2_facility_5
266 + Num_county_2_facility_6 + Num_county_2_facility_7
    + Num_county_2_facility_8
267 + Num_county_2_facility_9 = 230
268
269 _C3: Num_county_3_facility_1 +
    Num_county_3_facility_10
270 + Num_county_3_facility_11 +
    Num_county_3_facility_12
271 + Num_county_3_facility_13 +
    Num_county_3_facility_14
272 + Num_county_3_facility_15 +
    Num_county_3_facility_16
273 + Num_county_3_facility_17 +
```

```
273 Num_county_3_facility_18
274 + Num_county_3_facility_19 +
    Num_county_3_facility_2
275 + Num_county_3_facility_20 +
    Num_county_3_facility_21
276 + Num_county_3_facility_22 +
    Num_county_3_facility_23
277 + Num_county_3_facility_3 + Num_county_3_facility_4
    + Num_county_3_facility_5
278 + Num_county_3_facility_6 + Num_county_3_facility_7
    + Num_county_3_facility_8
279 + Num_county_3_facility_9 = 529
280
281 _C4: Num_county_4_facility_1 +
    Num_county_4_facility_10
282 + Num_county_4_facility_11 +
    Num_county_4_facility_12
283 + Num_county_4_facility_13 +
    Num_county_4_facility_14
284 + Num_county_4_facility_15 +
    Num_county_4_facility_16
285 + Num_county_4_facility_17 +
    Num_county_4_facility_18
286 + Num_county_4_facility_19 +
    Num_county_4_facility_2
287 + Num_county_4_facility_20 +
    Num_county_4_facility_21
288 + Num_county_4_facility_22 +
    Num_county_4_facility_23
289 + Num_county_4_facility_3 + Num_county_4_facility_4
    + Num_county_4_facility_5
290 + Num_county_4_facility_6 + Num_county_4_facility_7
    + Num_county_4_facility_8
291 + Num_county_4_facility_9 = 339
292
293 _C5: Num_county_5_facility_1 +
    Num_county_5_facility_10
294 + Num_county_5_facility_11 +
    Num_county_5_facility_12
295 + Num_county_5_facility_13 +
    Num_county_5_facility_14
```

```
296 + Num_county_5_facility_15 +
      Num_county_5_facility_16
297 + Num_county_5_facility_17 +
      Num_county_5_facility_18
298 + Num_county_5_facility_19 +
      Num_county_5_facility_2
299 + Num_county_5_facility_20 +
      Num_county_5_facility_21
300 + Num_county_5_facility_22 +
      Num_county_5_facility_23
301 + Num_county_5_facility_3 + Num_county_5_facility_4
      + Num_county_5_facility_5
302 + Num_county_5_facility_6 + Num_county_5_facility_7
      + Num_county_5_facility_8
303 + Num_county_5_facility_9 = 360
304
305 _C6: Num_county_6_facility_1 +
      Num_county_6_facility_10
306 + Num_county_6_facility_11 +
      Num_county_6_facility_12
307 + Num_county_6_facility_13 +
      Num_county_6_facility_14
308 + Num_county_6_facility_15 +
      Num_county_6_facility_16
309 + Num_county_6_facility_17 +
      Num_county_6_facility_18
310 + Num_county_6_facility_19 +
      Num_county_6_facility_2
311 + Num_county_6_facility_20 +
      Num_county_6_facility_21
312 + Num_county_6_facility_22 +
      Num_county_6_facility_23
313 + Num_county_6_facility_3 + Num_county_6_facility_4
      + Num_county_6_facility_5
314 + Num_county_6_facility_6 + Num_county_6_facility_7
      + Num_county_6_facility_8
315 + Num_county_6_facility_9 = 527
316
317 _C7: Num_county_7_facility_1 +
      Num_county_7_facility_10
318 + Num_county_7_facility_11 +
```

```
318 Num_county_7_facility_12
319 + Num_county_7_facility_13 +
    Num_county_7_facility_14
320 + Num_county_7_facility_15 +
    Num_county_7_facility_16
321 + Num_county_7_facility_17 +
    Num_county_7_facility_18
322 + Num_county_7_facility_19 +
    Num_county_7_facility_2
323 + Num_county_7_facility_20 +
    Num_county_7_facility_21
324 + Num_county_7_facility_22 +
    Num_county_7_facility_23
325 + Num_county_7_facility_3 + Num_county_7_facility_4
    + Num_county_7_facility_5
326 + Num_county_7_facility_6 + Num_county_7_facility_7
    + Num_county_7_facility_8
327 + Num_county_7_facility_9 = 469
328
329 _C8: Num_county_8_facility_1 +
    Num_county_8_facility_10
330 + Num_county_8_facility_11 +
    Num_county_8_facility_12
331 + Num_county_8_facility_13 +
    Num_county_8_facility_14
332 + Num_county_8_facility_15 +
    Num_county_8_facility_16
333 + Num_county_8_facility_17 +
    Num_county_8_facility_18
334 + Num_county_8_facility_19 +
    Num_county_8_facility_2
335 + Num_county_8_facility_20 +
    Num_county_8_facility_21
336 + Num_county_8_facility_22 +
    Num_county_8_facility_23
337 + Num_county_8_facility_3 + Num_county_8_facility_4
    + Num_county_8_facility_5
338 + Num_county_8_facility_6 + Num_county_8_facility_7
    + Num_county_8_facility_8
339 + Num_county_8_facility_9 = 234
340
```

```
341 _C9: Num_county_9_facility_1 +
    Num_county_9_facility_10
342 + Num_county_9_facility_11 +
    Num_county_9_facility_12
343 + Num_county_9_facility_13 +
    Num_county_9_facility_14
344 + Num_county_9_facility_15 +
    Num_county_9_facility_16
345 + Num_county_9_facility_17 +
    Num_county_9_facility_18
346 + Num_county_9_facility_19 +
    Num_county_9_facility_2
347 + Num_county_9_facility_20 +
    Num_county_9_facility_21
348 + Num_county_9_facility_22 +
    Num_county_9_facility_23
349 + Num_county_9_facility_3 + Num_county_9_facility_4
    + Num_county_9_facility_5
350 + Num_county_9_facility_6 + Num_county_9_facility_7
    + Num_county_9_facility_8
351 + Num_county_9_facility_9 = 500
352
353 _C10: Num_county_1_facility_1 +
    Num_county_2_facility_1
354 + Num_county_3_facility_1 + Num_county_4_facility_1
    + Num_county_5_facility_1
355 + Num_county_6_facility_1 + Num_county_7_facility_1
    + Num_county_8_facility_1
356 + Num_county_9_facility_1 <= 281
357
358 _C11: Num_county_1_facility_2 +
    Num_county_2_facility_2
359 + Num_county_3_facility_2 + Num_county_4_facility_2
    + Num_county_5_facility_2
360 + Num_county_6_facility_2 + Num_county_7_facility_2
    + Num_county_8_facility_2
361 + Num_county_9_facility_2 <= 187
362
363 _C12: Num_county_1_facility_3 +
    Num_county_2_facility_3
364 + Num_county_3_facility_3 + Num_county_4_facility_3
```

```
364 + Num_county_5_facility_3
365 + Num_county_6_facility_3 + Num_county_7_facility_3
    + Num_county_8_facility_3
366 + Num_county_9_facility_3 <= 200
367
368 _C13: Num_county_1_facility_4 +
    Num_county_2_facility_4
369 + Num_county_3_facility_4 + Num_county_4_facility_4
    + Num_county_5_facility_4
370 + Num_county_6_facility_4 + Num_county_7_facility_4
    + Num_county_8_facility_4
371 + Num_county_9_facility_4 <= 223
372
373 _C14: Num_county_1_facility_5 +
    Num_county_2_facility_5
374 + Num_county_3_facility_5 + Num_county_4_facility_5
    + Num_county_5_facility_5
375 + Num_county_6_facility_5 + Num_county_7_facility_5
    + Num_county_8_facility_5
376 + Num_county_9_facility_5 <= 281
377
378 _C15: Num_county_1_facility_6 +
    Num_county_2_facility_6
379 + Num_county_3_facility_6 + Num_county_4_facility_6
    + Num_county_5_facility_6
380 + Num_county_6_facility_6 + Num_county_7_facility_6
    + Num_county_8_facility_6
381 + Num_county_9_facility_6 <= 281
382
383 _C16: Num_county_1_facility_7 +
    Num_county_2_facility_7
384 + Num_county_3_facility_7 + Num_county_4_facility_7
    + Num_county_5_facility_7
385 + Num_county_6_facility_7 + Num_county_7_facility_7
    + Num_county_8_facility_7
386 + Num_county_9_facility_7 <= 222
387
388 _C17: Num_county_1_facility_8 +
    Num_county_2_facility_8
389 + Num_county_3_facility_8 + Num_county_4_facility_8
    + Num_county_5_facility_8
```

```
390 + Num_county_6_facility_8 + Num_county_7_facility_8
      + Num_county_8_facility_8
391 + Num_county_9_facility_8 <= 200
392
393 _C18: Num_county_1_facility_9 +
      Num_county_2_facility_9
394 + Num_county_3_facility_9 + Num_county_4_facility_9
      + Num_county_5_facility_9
395 + Num_county_6_facility_9 + Num_county_7_facility_9
      + Num_county_8_facility_9
396 + Num_county_9_facility_9 <= 250
397
398 _C19: Num_county_1_facility_10 +
      Num_county_2_facility_10
399 + Num_county_3_facility_10 +
      Num_county_4_facility_10
400 + Num_county_5_facility_10 +
      Num_county_6_facility_10
401 + Num_county_7_facility_10 +
      Num_county_8_facility_10
402 + Num_county_9_facility_10 <= 125
403
404 _C20: Num_county_1_facility_11 +
      Num_county_2_facility_11
405 + Num_county_3_facility_11 +
      Num_county_4_facility_11
406 + Num_county_5_facility_11 +
      Num_county_6_facility_11
407 + Num_county_7_facility_11 +
      Num_county_8_facility_11
408 + Num_county_9_facility_11 <= 187
409
410 _C21: Num_county_1_facility_12 +
      Num_county_2_facility_12
411 + Num_county_3_facility_12 +
      Num_county_4_facility_12
412 + Num_county_5_facility_12 +
      Num_county_6_facility_12
413 + Num_county_7_facility_12 +
      Num_county_8_facility_12
414 + Num_county_9_facility_12 <= 300
```

```
415
416 _C22: Num_county_1_facility_13 +
    Num_county_2_facility_13
417 + Num_county_3_facility_13 +
    Num_county_4_facility_13
418 + Num_county_5_facility_13 +
    Num_county_6_facility_13
419 + Num_county_7_facility_13 +
    Num_county_8_facility_13
420 + Num_county_9_facility_13 <= 300
421
422 _C23: Num_county_1_facility_14 +
    Num_county_2_facility_14
423 + Num_county_3_facility_14 +
    Num_county_4_facility_14
424 + Num_county_5_facility_14 +
    Num_county_6_facility_14
425 + Num_county_7_facility_14 +
    Num_county_8_facility_14
426 + Num_county_9_facility_14 <= 243
427
428 _C24: Num_county_1_facility_15 +
    Num_county_2_facility_15
429 + Num_county_3_facility_15 +
    Num_county_4_facility_15
430 + Num_county_5_facility_15 +
    Num_county_6_facility_15
431 + Num_county_7_facility_15 +
    Num_county_8_facility_15
432 + Num_county_9_facility_15 <= 100
433
434 _C25: Num_county_1_facility_15 +
    Num_county_2_facility_15
435 + Num_county_3_facility_15 +
    Num_county_4_facility_15
436 + Num_county_5_facility_15 +
    Num_county_6_facility_15
437 + Num_county_7_facility_15 +
    Num_county_8_facility_15
438 + Num_county_9_facility_15 - Z_facility_15 - 100
    temporary_facility_15 <= 0
```

```
439
440 _C26: Num_county_1_facility_16 +
        Num_county_2_facility_16
441 + Num_county_3_facility_16 +
        Num_county_4_facility_16
442 + Num_county_5_facility_16 +
        Num_county_6_facility_16
443 + Num_county_7_facility_16 +
        Num_county_8_facility_16
444 + Num_county_9_facility_16 - Z_facility_16 - 100
        temporary_facility_16 <= 0
445
446 _C27: Num_county_1_facility_17 +
        Num_county_2_facility_17
447 + Num_county_3_facility_17 +
        Num_county_4_facility_17
448 + Num_county_5_facility_17 +
        Num_county_6_facility_17
449 + Num_county_7_facility_17 +
        Num_county_8_facility_17
450 + Num_county_9_facility_17 - Z_facility_17 - 100
        temporary_facility_17 <= 0
451
452 _C28: Num_county_1_facility_18 +
        Num_county_2_facility_18
453 + Num_county_3_facility_18 +
        Num_county_4_facility_18
454 + Num_county_5_facility_18 +
        Num_county_6_facility_18
455 + Num_county_7_facility_18 +
        Num_county_8_facility_18
456 + Num_county_9_facility_18 - Z_facility_18 - 100
        temporary_facility_18 <= 0
457
458 _C29: Num_county_1_facility_19 +
        Num_county_2_facility_19
459 + Num_county_3_facility_19 +
        Num_county_4_facility_19
460 + Num_county_5_facility_19 +
        Num_county_6_facility_19
461 + Num_county_7_facility_19 +
```

```
461 Num_county_8_facility_19
462 + Num_county_9_facility_19 - Z_facility_19 - 100
    temporary_facility_19 <= 0
463
464 _C30: Num_county_1_facility_20 +
    Num_county_2_facility_20
465 + Num_county_3_facility_20 +
    Num_county_4_facility_20
466 + Num_county_5_facility_20 +
    Num_county_6_facility_20
467 + Num_county_7_facility_20 +
    Num_county_8_facility_20
468 + Num_county_9_facility_20 - Z_facility_20 - 100
    temporary_facility_20 <= 0
469
470 _C31: Num_county_1_facility_21 +
    Num_county_2_facility_21
471 + Num_county_3_facility_21 +
    Num_county_4_facility_21
472 + Num_county_5_facility_21 +
    Num_county_6_facility_21
473 + Num_county_7_facility_21 +
    Num_county_8_facility_21
474 + Num_county_9_facility_21 - Z_facility_21 - 100
    temporary_facility_21 <= 0
475
476 _C32: Num_county_1_facility_22 +
    Num_county_2_facility_22
477 + Num_county_3_facility_22 +
    Num_county_4_facility_22
478 + Num_county_5_facility_22 +
    Num_county_6_facility_22
479 + Num_county_7_facility_22 +
    Num_county_8_facility_22
480 + Num_county_9_facility_22 - Z_facility_22 - 100
    temporary_facility_22 <= 0
481
482 _C33: Num_county_1_facility_23 +
    Num_county_2_facility_23
483 + Num_county_3_facility_23 +
    Num_county_4_facility_23
```

```
484 + Num_county_5_facility_23 +
    Num_county_6_facility_23
485 + Num_county_7_facility_23 +
    Num_county_8_facility_23
486 + Num_county_9_facility_23 - Z_facility_23 - 100
    temporary_facility_23 <= 0
487
488 _C34: Num_county_1_facility_1 >= 0
489
490 _C35: Num_county_1_facility_2 >= 0
491
492 _C36: Num_county_1_facility_3 >= 0
493
494 _C37: Num_county_1_facility_4 >= 0
495
496 _C38: Num_county_1_facility_5 >= 0
497
498 _C39: Num_county_1_facility_6 >= 0
499
500 _C40: Num_county_1_facility_7 >= 0
501
502 _C41: Num_county_1_facility_8 >= 0
503
504 _C42: Num_county_1_facility_9 >= 0
505
506 _C43: Num_county_1_facility_10 >= 0
507
508 _C44: Num_county_1_facility_11 >= 0
509
510 _C45: Num_county_1_facility_12 >= 0
511
512 _C46: Num_county_1_facility_13 >= 0
513
514 _C47: Num_county_1_facility_14 >= 0
515
516 _C48: Num_county_1_facility_15 >= 0
517
518 _C49: Num_county_1_facility_16 >= 0
519
520 _C50: Num_county_1_facility_17 >= 0
521
```

```
522 _C51: Num_county_1_facility_18 >= 0
523
524 _C52: Num_county_1_facility_19 >= 0
525
526 _C53: Num_county_1_facility_20 >= 0
527
528 _C54: Num_county_1_facility_21 >= 0
529
530 _C55: Num_county_1_facility_22 >= 0
531
532 _C56: Num_county_1_facility_23 >= 0
533
534 _C57: Num_county_2_facility_1 >= 0
535
536 _C58: Num_county_2_facility_2 >= 0
537
538 _C59: Num_county_2_facility_3 >= 0
539
540 _C60: Num_county_2_facility_4 >= 0
541
542 _C61: Num_county_2_facility_5 >= 0
543
544 _C62: Num_county_2_facility_6 >= 0
545
546 _C63: Num_county_2_facility_7 >= 0
547
548 _C64: Num_county_2_facility_8 >= 0
549
550 _C65: Num_county_2_facility_9 >= 0
551
552 _C66: Num_county_2_facility_10 >= 0
553
554 _C67: Num_county_2_facility_11 >= 0
555
556 _C68: Num_county_2_facility_12 >= 0
557
558 _C69: Num_county_2_facility_13 >= 0
559
560 _C70: Num_county_2_facility_14 >= 0
561
562 _C71: Num_county_2_facility_15 >= 0
```

```
563
564 _C72: Num_county_2_facility_16 >= 0
565
566 _C73: Num_county_2_facility_17 >= 0
567
568 _C74: Num_county_2_facility_18 >= 0
569
570 _C75: Num_county_2_facility_19 >= 0
571
572 _C76: Num_county_2_facility_20 >= 0
573
574 _C77: Num_county_2_facility_21 >= 0
575
576 _C78: Num_county_2_facility_22 >= 0
577
578 _C79: Num_county_2_facility_23 >= 0
579
580 _C80: Num_county_3_facility_1 >= 0
581
582 _C81: Num_county_3_facility_2 >= 0
583
584 _C82: Num_county_3_facility_3 >= 0
585
586 _C83: Num_county_3_facility_4 >= 0
587
588 _C84: Num_county_3_facility_5 >= 0
589
590 _C85: Num_county_3_facility_6 >= 0
591
592 _C86: Num_county_3_facility_7 >= 0
593
594 _C87: Num_county_3_facility_8 >= 0
595
596 _C88: Num_county_3_facility_9 >= 0
597
598 _C89: Num_county_3_facility_10 >= 0
599
600 _C90: Num_county_3_facility_11 >= 0
601
602 _C91: Num_county_3_facility_12 >= 0
603
```

```
604 _C92: Num_county_3_facility_13 >= 0
605
606 _C93: Num_county_3_facility_14 >= 0
607
608 _C94: Num_county_3_facility_15 >= 0
609
610 _C95: Num_county_3_facility_16 >= 0
611
612 _C96: Num_county_3_facility_17 >= 0
613
614 _C97: Num_county_3_facility_18 >= 0
615
616 _C98: Num_county_3_facility_19 >= 0
617
618 _C99: Num_county_3_facility_20 >= 0
619
620 _C100: Num_county_3_facility_21 >= 0
621
622 _C101: Num_county_3_facility_22 >= 0
623
624 _C102: Num_county_3_facility_23 >= 0
625
626 _C103: Num_county_4_facility_1 >= 0
627
628 _C104: Num_county_4_facility_2 >= 0
629
630 _C105: Num_county_4_facility_3 >= 0
631
632 _C106: Num_county_4_facility_4 >= 0
633
634 _C107: Num_county_4_facility_5 >= 0
635
636 _C108: Num_county_4_facility_6 >= 0
637
638 _C109: Num_county_4_facility_7 >= 0
639
640 _C110: Num_county_4_facility_8 >= 0
641
642 _C111: Num_county_4_facility_9 >= 0
643
644 _C112: Num_county_4_facility_10 >= 0
```

```
645  
646 _C113: Num_county_4_facility_11 >= 0  
647  
648 _C114: Num_county_4_facility_12 >= 0  
649  
650 _C115: Num_county_4_facility_13 >= 0  
651  
652 _C116: Num_county_4_facility_14 >= 0  
653  
654 _C117: Num_county_4_facility_15 >= 0  
655  
656 _C118: Num_county_4_facility_16 >= 0  
657  
658 _C119: Num_county_4_facility_17 >= 0  
659  
660 _C120: Num_county_4_facility_18 >= 0  
661  
662 _C121: Num_county_4_facility_19 >= 0  
663  
664 _C122: Num_county_4_facility_20 >= 0  
665  
666 _C123: Num_county_4_facility_21 >= 0  
667  
668 _C124: Num_county_4_facility_22 >= 0  
669  
670 _C125: Num_county_4_facility_23 >= 0  
671  
672 _C126: Num_county_5_facility_1 >= 0  
673  
674 _C127: Num_county_5_facility_2 >= 0  
675  
676 _C128: Num_county_5_facility_3 >= 0  
677  
678 _C129: Num_county_5_facility_4 >= 0  
679  
680 _C130: Num_county_5_facility_5 >= 0  
681  
682 _C131: Num_county_5_facility_6 >= 0  
683  
684 _C132: Num_county_5_facility_7 >= 0  
685
```

```
686 _C133: Num_county_5_facility_8 >= 0
687
688 _C134: Num_county_5_facility_9 >= 0
689
690 _C135: Num_county_5_facility_10 >= 0
691
692 _C136: Num_county_5_facility_11 >= 0
693
694 _C137: Num_county_5_facility_12 >= 0
695
696 _C138: Num_county_5_facility_13 >= 0
697
698 _C139: Num_county_5_facility_14 >= 0
699
700 _C140: Num_county_5_facility_15 >= 0
701
702 _C141: Num_county_5_facility_16 >= 0
703
704 _C142: Num_county_5_facility_17 >= 0
705
706 _C143: Num_county_5_facility_18 >= 0
707
708 _C144: Num_county_5_facility_19 >= 0
709
710 _C145: Num_county_5_facility_20 >= 0
711
712 _C146: Num_county_5_facility_21 >= 0
713
714 _C147: Num_county_5_facility_22 >= 0
715
716 _C148: Num_county_5_facility_23 >= 0
717
718 _C149: Num_county_6_facility_1 >= 0
719
720 _C150: Num_county_6_facility_2 >= 0
721
722 _C151: Num_county_6_facility_3 >= 0
723
724 _C152: Num_county_6_facility_4 >= 0
725
726 _C153: Num_county_6_facility_5 >= 0
```

```
727
728 _C154: Num_county_6_facility_6 >= 0
729
730 _C155: Num_county_6_facility_7 >= 0
731
732 _C156: Num_county_6_facility_8 >= 0
733
734 _C157: Num_county_6_facility_9 >= 0
735
736 _C158: Num_county_6_facility_10 >= 0
737
738 _C159: Num_county_6_facility_11 >= 0
739
740 _C160: Num_county_6_facility_12 >= 0
741
742 _C161: Num_county_6_facility_13 >= 0
743
744 _C162: Num_county_6_facility_14 >= 0
745
746 _C163: Num_county_6_facility_15 >= 0
747
748 _C164: Num_county_6_facility_16 >= 0
749
750 _C165: Num_county_6_facility_17 >= 0
751
752 _C166: Num_county_6_facility_18 >= 0
753
754 _C167: Num_county_6_facility_19 >= 0
755
756 _C168: Num_county_6_facility_20 >= 0
757
758 _C169: Num_county_6_facility_21 >= 0
759
760 _C170: Num_county_6_facility_22 >= 0
761
762 _C171: Num_county_6_facility_23 >= 0
763
764 _C172: Num_county_7_facility_1 >= 0
765
766 _C173: Num_county_7_facility_2 >= 0
767
```

```
768 _C174: Num_county_7_facility_3 >= 0
769
770 _C175: Num_county_7_facility_4 >= 0
771
772 _C176: Num_county_7_facility_5 >= 0
773
774 _C177: Num_county_7_facility_6 >= 0
775
776 _C178: Num_county_7_facility_7 >= 0
777
778 _C179: Num_county_7_facility_8 >= 0
779
780 _C180: Num_county_7_facility_9 >= 0
781
782 _C181: Num_county_7_facility_10 >= 0
783
784 _C182: Num_county_7_facility_11 >= 0
785
786 _C183: Num_county_7_facility_12 >= 0
787
788 _C184: Num_county_7_facility_13 >= 0
789
790 _C185: Num_county_7_facility_14 >= 0
791
792 _C186: Num_county_7_facility_15 >= 0
793
794 _C187: Num_county_7_facility_16 >= 0
795
796 _C188: Num_county_7_facility_17 >= 0
797
798 _C189: Num_county_7_facility_18 >= 0
799
800 _C190: Num_county_7_facility_19 >= 0
801
802 _C191: Num_county_7_facility_20 >= 0
803
804 _C192: Num_county_7_facility_21 >= 0
805
806 _C193: Num_county_7_facility_22 >= 0
807
808 _C194: Num_county_7_facility_23 >= 0
```

```
809
810 _C195: Num_county_8_facility_1 >= 0
811
812 _C196: Num_county_8_facility_2 >= 0
813
814 _C197: Num_county_8_facility_3 >= 0
815
816 _C198: Num_county_8_facility_4 >= 0
817
818 _C199: Num_county_8_facility_5 >= 0
819
820 _C200: Num_county_8_facility_6 >= 0
821
822 _C201: Num_county_8_facility_7 >= 0
823
824 _C202: Num_county_8_facility_8 >= 0
825
826 _C203: Num_county_8_facility_9 >= 0
827
828 _C204: Num_county_8_facility_10 >= 0
829
830 _C205: Num_county_8_facility_11 >= 0
831
832 _C206: Num_county_8_facility_12 >= 0
833
834 _C207: Num_county_8_facility_13 >= 0
835
836 _C208: Num_county_8_facility_14 >= 0
837
838 _C209: Num_county_8_facility_15 >= 0
839
840 _C210: Num_county_8_facility_16 >= 0
841
842 _C211: Num_county_8_facility_17 >= 0
843
844 _C212: Num_county_8_facility_18 >= 0
845
846 _C213: Num_county_8_facility_19 >= 0
847
848 _C214: Num_county_8_facility_20 >= 0
849
```

```
850 _C215: Num_county_8_facility_21 >= 0
851
852 _C216: Num_county_8_facility_22 >= 0
853
854 _C217: Num_county_8_facility_23 >= 0
855
856 _C218: Num_county_9_facility_1 >= 0
857
858 _C219: Num_county_9_facility_2 >= 0
859
860 _C220: Num_county_9_facility_3 >= 0
861
862 _C221: Num_county_9_facility_4 >= 0
863
864 _C222: Num_county_9_facility_5 >= 0
865
866 _C223: Num_county_9_facility_6 >= 0
867
868 _C224: Num_county_9_facility_7 >= 0
869
870 _C225: Num_county_9_facility_8 >= 0
871
872 _C226: Num_county_9_facility_9 >= 0
873
874 _C227: Num_county_9_facility_10 >= 0
875
876 _C228: Num_county_9_facility_11 >= 0
877
878 _C229: Num_county_9_facility_12 >= 0
879
880 _C230: Num_county_9_facility_13 >= 0
881
882 _C231: Num_county_9_facility_14 >= 0
883
884 _C232: Num_county_9_facility_15 >= 0
885
886 _C233: Num_county_9_facility_16 >= 0
887
888 _C234: Num_county_9_facility_17 >= 0
889
890 _C235: Num_county_9_facility_18 >= 0
```

```
891  
892 _C236: Num_county_9_facility_19 >= 0  
893  
894 _C237: Num_county_9_facility_20 >= 0  
895  
896 _C238: Num_county_9_facility_21 >= 0  
897  
898 _C239: Num_county_9_facility_22 >= 0  
899  
900 _C240: Num_county_9_facility_23 >= 0  
901  
902 _C241: Z_facility_15 >= 0  
903  
904 _C242: Z_facility_16 >= 0  
905  
906 _C243: Z_facility_17 >= 0  
907  
908 _C244: Z_facility_18 >= 0  
909  
910 _C245: Z_facility_19 >= 0  
911  
912 _C246: Z_facility_20 >= 0  
913  
914 _C247: Z_facility_21 >= 0  
915  
916 _C248: Z_facility_22 >= 0  
917  
918 _C249: Z_facility_23 >= 0  
919  
920 VARIABLES  
921 Num_county_1_facility_1 Continuous  
922 Num_county_1_facility_10 Continuous  
923 Num_county_1_facility_11 Continuous  
924 Num_county_1_facility_12 Continuous  
925 Num_county_1_facility_13 Continuous  
926 Num_county_1_facility_14 Continuous  
927 Num_county_1_facility_15 Continuous  
928 Num_county_1_facility_16 Continuous  
929 Num_county_1_facility_17 Continuous  
930 Num_county_1_facility_18 Continuous  
931 Num_county_1_facility_19 Continuous
```

932	Num_county_1_facility_2	Continuous
933	Num_county_1_facility_20	Continuous
934	Num_county_1_facility_21	Continuous
935	Num_county_1_facility_22	Continuous
936	Num_county_1_facility_23	Continuous
937	Num_county_1_facility_3	Continuous
938	Num_county_1_facility_4	Continuous
939	Num_county_1_facility_5	Continuous
940	Num_county_1_facility_6	Continuous
941	Num_county_1_facility_7	Continuous
942	Num_county_1_facility_8	Continuous
943	Num_county_1_facility_9	Continuous
944	Num_county_2_facility_1	Continuous
945	Num_county_2_facility_10	Continuous
946	Num_county_2_facility_11	Continuous
947	Num_county_2_facility_12	Continuous
948	Num_county_2_facility_13	Continuous
949	Num_county_2_facility_14	Continuous
950	Num_county_2_facility_15	Continuous
951	Num_county_2_facility_16	Continuous
952	Num_county_2_facility_17	Continuous
953	Num_county_2_facility_18	Continuous
954	Num_county_2_facility_19	Continuous
955	Num_county_2_facility_2	Continuous
956	Num_county_2_facility_20	Continuous
957	Num_county_2_facility_21	Continuous
958	Num_county_2_facility_22	Continuous
959	Num_county_2_facility_23	Continuous
960	Num_county_2_facility_3	Continuous
961	Num_county_2_facility_4	Continuous
962	Num_county_2_facility_5	Continuous
963	Num_county_2_facility_6	Continuous
964	Num_county_2_facility_7	Continuous
965	Num_county_2_facility_8	Continuous
966	Num_county_2_facility_9	Continuous
967	Num_county_3_facility_1	Continuous
968	Num_county_3_facility_10	Continuous
969	Num_county_3_facility_11	Continuous
970	Num_county_3_facility_12	Continuous
971	Num_county_3_facility_13	Continuous
972	Num_county_3_facility_14	Continuous

973	Num_county_3_facility_15	Continuous
974	Num_county_3_facility_16	Continuous
975	Num_county_3_facility_17	Continuous
976	Num_county_3_facility_18	Continuous
977	Num_county_3_facility_19	Continuous
978	Num_county_3_facility_2	Continuous
979	Num_county_3_facility_20	Continuous
980	Num_county_3_facility_21	Continuous
981	Num_county_3_facility_22	Continuous
982	Num_county_3_facility_23	Continuous
983	Num_county_3_facility_3	Continuous
984	Num_county_3_facility_4	Continuous
985	Num_county_3_facility_5	Continuous
986	Num_county_3_facility_6	Continuous
987	Num_county_3_facility_7	Continuous
988	Num_county_3_facility_8	Continuous
989	Num_county_3_facility_9	Continuous
990	Num_county_4_facility_1	Continuous
991	Num_county_4_facility_10	Continuous
992	Num_county_4_facility_11	Continuous
993	Num_county_4_facility_12	Continuous
994	Num_county_4_facility_13	Continuous
995	Num_county_4_facility_14	Continuous
996	Num_county_4_facility_15	Continuous
997	Num_county_4_facility_16	Continuous
998	Num_county_4_facility_17	Continuous
999	Num_county_4_facility_18	Continuous
1000	Num_county_4_facility_19	Continuous
1001	Num_county_4_facility_2	Continuous
1002	Num_county_4_facility_20	Continuous
1003	Num_county_4_facility_21	Continuous
1004	Num_county_4_facility_22	Continuous
1005	Num_county_4_facility_23	Continuous
1006	Num_county_4_facility_3	Continuous
1007	Num_county_4_facility_4	Continuous
1008	Num_county_4_facility_5	Continuous
1009	Num_county_4_facility_6	Continuous
1010	Num_county_4_facility_7	Continuous
1011	Num_county_4_facility_8	Continuous
1012	Num_county_4_facility_9	Continuous
1013	Num_county_5_facility_1	Continuous

1014	Num_county_5_facility_10	Continuous
1015	Num_county_5_facility_11	Continuous
1016	Num_county_5_facility_12	Continuous
1017	Num_county_5_facility_13	Continuous
1018	Num_county_5_facility_14	Continuous
1019	Num_county_5_facility_15	Continuous
1020	Num_county_5_facility_16	Continuous
1021	Num_county_5_facility_17	Continuous
1022	Num_county_5_facility_18	Continuous
1023	Num_county_5_facility_19	Continuous
1024	Num_county_5_facility_2	Continuous
1025	Num_county_5_facility_20	Continuous
1026	Num_county_5_facility_21	Continuous
1027	Num_county_5_facility_22	Continuous
1028	Num_county_5_facility_23	Continuous
1029	Num_county_5_facility_3	Continuous
1030	Num_county_5_facility_4	Continuous
1031	Num_county_5_facility_5	Continuous
1032	Num_county_5_facility_6	Continuous
1033	Num_county_5_facility_7	Continuous
1034	Num_county_5_facility_8	Continuous
1035	Num_county_5_facility_9	Continuous
1036	Num_county_6_facility_1	Continuous
1037	Num_county_6_facility_10	Continuous
1038	Num_county_6_facility_11	Continuous
1039	Num_county_6_facility_12	Continuous
1040	Num_county_6_facility_13	Continuous
1041	Num_county_6_facility_14	Continuous
1042	Num_county_6_facility_15	Continuous
1043	Num_county_6_facility_16	Continuous
1044	Num_county_6_facility_17	Continuous
1045	Num_county_6_facility_18	Continuous
1046	Num_county_6_facility_19	Continuous
1047	Num_county_6_facility_2	Continuous
1048	Num_county_6_facility_20	Continuous
1049	Num_county_6_facility_21	Continuous
1050	Num_county_6_facility_22	Continuous
1051	Num_county_6_facility_23	Continuous
1052	Num_county_6_facility_3	Continuous
1053	Num_county_6_facility_4	Continuous
1054	Num_county_6_facility_5	Continuous

1055	Num_county_6_facility_6	Continuous
1056	Num_county_6_facility_7	Continuous
1057	Num_county_6_facility_8	Continuous
1058	Num_county_6_facility_9	Continuous
1059	Num_county_7_facility_1	Continuous
1060	Num_county_7_facility_10	Continuous
1061	Num_county_7_facility_11	Continuous
1062	Num_county_7_facility_12	Continuous
1063	Num_county_7_facility_13	Continuous
1064	Num_county_7_facility_14	Continuous
1065	Num_county_7_facility_15	Continuous
1066	Num_county_7_facility_16	Continuous
1067	Num_county_7_facility_17	Continuous
1068	Num_county_7_facility_18	Continuous
1069	Num_county_7_facility_19	Continuous
1070	Num_county_7_facility_2	Continuous
1071	Num_county_7_facility_20	Continuous
1072	Num_county_7_facility_21	Continuous
1073	Num_county_7_facility_22	Continuous
1074	Num_county_7_facility_23	Continuous
1075	Num_county_7_facility_3	Continuous
1076	Num_county_7_facility_4	Continuous
1077	Num_county_7_facility_5	Continuous
1078	Num_county_7_facility_6	Continuous
1079	Num_county_7_facility_7	Continuous
1080	Num_county_7_facility_8	Continuous
1081	Num_county_7_facility_9	Continuous
1082	Num_county_8_facility_1	Continuous
1083	Num_county_8_facility_10	Continuous
1084	Num_county_8_facility_11	Continuous
1085	Num_county_8_facility_12	Continuous
1086	Num_county_8_facility_13	Continuous
1087	Num_county_8_facility_14	Continuous
1088	Num_county_8_facility_15	Continuous
1089	Num_county_8_facility_16	Continuous
1090	Num_county_8_facility_17	Continuous
1091	Num_county_8_facility_18	Continuous
1092	Num_county_8_facility_19	Continuous
1093	Num_county_8_facility_2	Continuous
1094	Num_county_8_facility_20	Continuous
1095	Num_county_8_facility_21	Continuous

1096	Num_county_8_facility_22	Continuous
1097	Num_county_8_facility_23	Continuous
1098	Num_county_8_facility_3	Continuous
1099	Num_county_8_facility_4	Continuous
1100	Num_county_8_facility_5	Continuous
1101	Num_county_8_facility_6	Continuous
1102	Num_county_8_facility_7	Continuous
1103	Num_county_8_facility_8	Continuous
1104	Num_county_8_facility_9	Continuous
1105	Num_county_9_facility_1	Continuous
1106	Num_county_9_facility_10	Continuous
1107	Num_county_9_facility_11	Continuous
1108	Num_county_9_facility_12	Continuous
1109	Num_county_9_facility_13	Continuous
1110	Num_county_9_facility_14	Continuous
1111	Num_county_9_facility_15	Continuous
1112	Num_county_9_facility_16	Continuous
1113	Num_county_9_facility_17	Continuous
1114	Num_county_9_facility_18	Continuous
1115	Num_county_9_facility_19	Continuous
1116	Num_county_9_facility_2	Continuous
1117	Num_county_9_facility_20	Continuous
1118	Num_county_9_facility_21	Continuous
1119	Num_county_9_facility_22	Continuous
1120	Num_county_9_facility_23	Continuous
1121	Num_county_9_facility_3	Continuous
1122	Num_county_9_facility_4	Continuous
1123	Num_county_9_facility_5	Continuous
1124	Num_county_9_facility_6	Continuous
1125	Num_county_9_facility_7	Continuous
1126	Num_county_9_facility_8	Continuous
1127	Num_county_9_facility_9	Continuous
1128	Z_facility_15	Continuous
1129	Z_facility_16	Continuous
1130	Z_facility_17	Continuous
1131	Z_facility_18	Continuous
1132	Z_facility_19	Continuous
1133	Z_facility_20	Continuous
1134	Z_facility_21	Continuous
1135	Z_facility_22	Continuous
1136	Z_facility_23	Continuous

```
1137 0 <= temporary_facility_15 <= 1 Integer
1138 0 <= temporary_facility_16 <= 1 Integer
1139 0 <= temporary_facility_17 <= 1 Integer
1140 0 <= temporary_facility_18 <= 1 Integer
1141 0 <= temporary_facility_19 <= 1 Integer
1142 0 <= temporary_facility_20 <= 1 Integer
1143 0 <= temporary_facility_21 <= 1 Integer
1144 0 <= temporary_facility_22 <= 1 Integer
1145 0 <= temporary_facility_23 <= 1 Integer
1146
1147 Welcome to the CBC MILP Solver
1148 Version: 2.10.3
1149 Build Date: Dec 15 2019
1150
1151 command line - C:\Python\Python39\lib\site-packages
    \pulp\apis\..\solverdir\cbc\win\64\cbc.exe C:\Users
    \RISHIM~1\AppData\Local\Temp\
    13249534f3b84192b7a05ebd71bf830a-pulp.mps timeMode
    elapsed branch printingOptions all solution C:\
    Users\RISHIM~1\AppData\Local\Temp\
    13249534f3b84192b7a05ebd71bf830a-pulp.sol (default
    strategy 1)
1152 At line 2 NAME           MODEL
1153 At line 3 ROWS
1154 At line 254 COLUMNS
1155 At line 1155 RHS
1156 At line 1405 BOUNDS
1157 At line 1415 ENDATA
1158 Problem MODEL has 249 rows, 225 columns and 657
    elements
1159 Coin0008I MODEL read with 0 errors
1160 Option for timeMode changed from cpu to elapsed
1161 Continuous objective value is 1.31717e+06 - 0.00
    seconds
1162 Cgl0004I processed model has 33 rows, 225 columns (
    9 integer (9 of which binary)) and 441 elements
1163 Cbc0038I Initial state - 3 integers unsatisfied sum
    - 1.19
1164 Cbc0038I Pass 1: suminf. 0.00000 (0) obj. 1.
    62058e+08 iterations 5
1165 Cbc0038I Solution found of 1.62058e+08
```

```
1166 Cbc0038I Relaxing continuous gives 1.07776e+08
1167 Cbc0038I Before mini branch and bound, 6 integers
      at bound fixed and 199 continuous
1168 Cbc0038I Full problem 33 rows 225 columns, reduced
      to 7 rows 10 columns
1169 Cbc0038I Mini branch and bound improved solution
      from 1.07776e+08 to 2.02188e+06 (0.01 seconds)
1170 Cbc0038I Freeing continuous variables gives a
      solution of 2.02022e+06
1171 Cbc0038I Round again with cutoff of 1.94991e+06
1172 Cbc0038I Pass  2: suminf.  0.41351 (1) obj. 1.
      94991e+06 iterations 9
1173 Cbc0038I Pass  3: suminf.  0.00000 (0) obj. 1.
      94991e+06 iterations 3
1174 Cbc0038I Solution found of 1.94991e+06
1175 Cbc0038I Relaxing continuous gives 1.52165e+06
1176 Cbc0038I Before mini branch and bound, 6 integers
      at bound fixed and 195 continuous
1177 Cbc0038I Full problem 33 rows 225 columns, reduced
      to 7 rows 12 columns
1178 Cbc0038I Mini branch and bound did not improve
      solution (0.01 seconds)
1179 Cbc0038I Round again with cutoff of 1.48076e+06
1180 Cbc0038I Pass  4: suminf.  0.41091 (1) obj. 1.
      48076e+06 iterations 0
1181 Cbc0038I Pass  5: suminf.  0.08206 (1) obj. 1.
      48076e+06 iterations 16
1182 Cbc0038I Pass  6: suminf.  0.08285 (1) obj. 1.
      48076e+06 iterations 12
1183 Cbc0038I Pass  7: suminf.  0.08285 (1) obj. 1.
      48076e+06 iterations 0
1184 Cbc0038I Pass  8: suminf.  0.41090 (1) obj. 1.
      48076e+06 iterations 13
1185 Cbc0038I Pass  9: suminf.  0.08278 (1) obj. 1.
      48076e+06 iterations 7
1186 Cbc0038I Pass 10: suminf.  0.08278 (1) obj. 1.
      48076e+06 iterations 0
1187 Cbc0038I Pass 11: suminf.  0.08438 (1) obj. 1.
      48076e+06 iterations 18
1188 Cbc0038I Pass 12: suminf.  0.08438 (1) obj. 1.
      48076e+06 iterations 0
```

1189	Cbc0038I	Pass 13: suminf.	0.41090 (1)	obj. 1.
		48076e+06 iterations 5		
1190	Cbc0038I	Pass 14: suminf.	0.08484 (1)	obj. 1.
		48076e+06 iterations 8		
1191	Cbc0038I	Pass 15: suminf.	0.08484 (1)	obj. 1.
		48076e+06 iterations 0		
1192	Cbc0038I	Pass 16: suminf.	0.08233 (1)	obj. 1.
		48076e+06 iterations 22		
1193	Cbc0038I	Pass 17: suminf.	0.41090 (1)	obj. 1.
		48076e+06 iterations 7		
1194	Cbc0038I	Pass 18: suminf.	0.08233 (1)	obj. 1.
		48076e+06 iterations 11		
1195	Cbc0038I	Pass 19: suminf.	0.08587 (1)	obj. 1.
		48076e+06 iterations 16		
1196	Cbc0038I	Pass 20: suminf.	0.41089 (1)	obj. 1.
		48076e+06 iterations 3		
1197	Cbc0038I	Pass 21: suminf.	0.08587 (1)	obj. 1.
		48076e+06 iterations 4		
1198	Cbc0038I	Pass 22: suminf.	0.08745 (1)	obj. 1.
		48076e+06 iterations 8		
1199	Cbc0038I	Pass 23: suminf.	0.08745 (1)	obj. 1.
		48076e+06 iterations 0		
1200	Cbc0038I	Pass 24: suminf.	0.41089 (1)	obj. 1.
		48076e+06 iterations 12		
1201	Cbc0038I	Pass 25: suminf.	0.08582 (1)	obj. 1.
		48076e+06 iterations 4		
1202	Cbc0038I	Pass 26: suminf.	0.08730 (1)	obj. 1.
		48076e+06 iterations 6		
1203	Cbc0038I	Pass 27: suminf.	0.08730 (1)	obj. 1.
		48076e+06 iterations 0		
1204	Cbc0038I	Pass 28: suminf.	0.41090 (1)	obj. 1.
		48076e+06 iterations 4		
1205	Cbc0038I	Pass 29: suminf.	0.08487 (1)	obj. 1.
		48076e+06 iterations 4		
1206	Cbc0038I	Pass 30: suminf.	0.08316 (1)	obj. 1.
		48076e+06 iterations 14		
1207	Cbc0038I	Pass 31: suminf.	0.08316 (1)	obj. 1.
		48076e+06 iterations 0		
1208	Cbc0038I	Pass 32: suminf.	0.41090 (1)	obj. 1.
		48076e+06 iterations 21		
1209	Cbc0038I	Pass 33: suminf.	0.08281 (1)	obj. 1.

```
1209 48076e+06 iterations 5
1210 Cbc0038I No solution found this major pass
1211 Cbc0038I Before mini branch and bound, 0 integers
      at bound fixed and 174 continuous
1212 Cbc0038I Full problem 33 rows 225 columns, reduced
      to 24 rows 49 columns
1213 Cbc0038I Mini branch and bound did not improve
      solution (0.04 seconds)
1214 Cbc0038I After 0.04 seconds - Feasibility pump
      exiting with objective of 1.52165e+06 - took 0.04
      seconds
1215 Cbc0012I Integer solution of 1521653.4 found by
      feasibility pump after 0 iterations and 0 nodes (0.
      04 seconds)
1216 Cbc0038I Full problem 33 rows 225 columns, reduced
      to 33 rows 219 columns
1217 Cbc0031I 8 added rows had average density of 159.
      625
1218 Cbc0013I At root node, 8 cuts changed objective
      from 1317174 to 1317715.7 in 100 passes
1219 Cbc0014I Cut generator 0 (Probing) - 0 row cuts
      average 0.0 elements, 0 column cuts (0 active) in
      0.024 seconds - new frequency is -100
1220 Cbc0014I Cut generator 1 (Gomory) - 197 row cuts
      average 219.0 elements, 0 column cuts (0 active)
      in 0.028 seconds - new frequency is 1
1221 Cbc0014I Cut generator 2 (Knapsack) - 0 row cuts
      average 0.0 elements, 0 column cuts (0 active) in
      0.013 seconds - new frequency is -100
1222 Cbc0014I Cut generator 3 (Clique) - 0 row cuts
      average 0.0 elements, 0 column cuts (0 active) in
      0.001 seconds - new frequency is -100
1223 Cbc0014I Cut generator 4 (MixedIntegerRounding2) -
      0 row cuts average 0.0 elements, 0 column cuts (0
      active) in 0.019 seconds - new frequency is -100
1224 Cbc0014I Cut generator 5 (FlowCover) - 0 row cuts
      average 0.0 elements, 0 column cuts (0 active) in
      0.061 seconds - new frequency is -100
1225 Cbc0014I Cut generator 6 (TwoMirCuts) - 15 row cuts
      average 98.9 elements, 0 column cuts (0 active)
      in 0.008 seconds - new frequency is -100
```

```
1226 Cbc0010I After 0 nodes, 1 on tree, 1521653.4 best
      solution, best possible 1317715.7 (0.35 seconds)
1227 Cbc0038I Full problem 33 rows 225 columns, reduced
      to 33 rows 219 columns
1228 Cbc0001I Search completed - best objective 1521653.
      424310509, took 1308 iterations and 60 nodes (0.50
      seconds)
1229 Cbc0032I Strong branching done 150 times (688
      iterations), fathomed 26 nodes and fixed 0
      variables
1230 Cbc0035I Maximum depth 6, 0 variables fixed on
      reduced cost
1231 Cuts at root node changed objective from 1.31717e+
      06 to 1.31772e+06
1232 Probing was tried 100 times and created 0 cuts of
      which 0 were active after adding rounds of cuts (0.
      024 seconds)
1233 Gomory was tried 153 times and created 199 cuts of
      which 0 were active after adding rounds of cuts (0.
      031 seconds)
1234 Knapsack was tried 100 times and created 0 cuts of
      which 0 were active after adding rounds of cuts (0.
      013 seconds)
1235 Clique was tried 100 times and created 0 cuts of
      which 0 were active after adding rounds of cuts (0.
      001 seconds)
1236 MixedIntegerRounding2 was tried 100 times and
      created 0 cuts of which 0 were active after adding
      rounds of cuts (0.019 seconds)
1237 FlowCover was tried 100 times and created 0 cuts of
      which 0 were active after adding rounds of cuts (0
      .061 seconds)
1238 TwoMirCuts was tried 100 times and created 15 cuts
      of which 0 were active after adding rounds of cuts
      (0.008 seconds)
1239 ZeroHalf was tried 1 times and created 0 cuts of
      which 0 were active after adding rounds of cuts (0.
      000 seconds)
1240
1241 Result - Optimal solution found
1242
```

```
1243 Objective value:          1521653.42431051
1244 Enumerated nodes:         60
1245 Total iterations:         1308
1246 Time (CPU seconds):      0.51
1247 Time (Wallclock seconds): 0.51
1248
1249 Option for printingOptions changed from normal to
     all
1250 Total time (CPU seconds): 0.52   (Wallclock
     seconds): 0.52
1251
1252 -----
-----  
-----  

1253 Cost of building temporary facility = 1500000.0
1254 Allocation cost of allocating patients to existing
     facility = 21653.424310508508
1255 -----plan for temporary
     facility-----
1256 build temporary facility 15
1257 build temporary facility 17
1258 build temporary facility 18
1259 -----Covid-19 Patients
     Assignment Plan-----
1260 281.0 patients from county 1 are assigned to
     facility 1
1261 0.0 patients from county 2 are assigned to facility
     1
1262 0.0 patients from county 3 are assigned to facility
     1
1263 0.0 patients from county 4 are assigned to facility
     1
1264 0.0 patients from county 5 are assigned to facility
     1
1265 0.0 patients from county 6 are assigned to facility
     1
1266 0.0 patients from county 7 are assigned to facility
     1
1267 0.0 patients from county 8 are assigned to facility
     1
1268 0.0 patients from county 9 are assigned to facility
```

1268 1  
1269  
1270 281.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO facility 1  
1271 -----  
-----  
1272 0.0 patients from county 1 are assigned to facility 2  
1273 187.0 patients from county 2 are assigned to facility 2  
1274 0.0 patients from county 3 are assigned to facility 2  
1275 0.0 patients from county 4 are assigned to facility 2  
1276 0.0 patients from county 5 are assigned to facility 2  
1277 0.0 patients from county 6 are assigned to facility 2  
1278 0.0 patients from county 7 are assigned to facility 2  
1279 0.0 patients from county 8 are assigned to facility 2  
1280 0.0 patients from county 9 are assigned to facility 2  
1281  
1282 187.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO facility 2  
1283 -----  
-----  
1284 0.0 patients from county 1 are assigned to facility 3  
1285 0.0 patients from county 2 are assigned to facility 3  
1286 200.0 patients from county 3 are assigned to facility 3  
1287 0.0 patients from county 4 are assigned to facility 3  
1288 0.0 patients from county 5 are assigned to facility 3  
1289 0.0 patients from county 6 are assigned to facility 3

1290 0.0 patients from county 7 are assigned to facility  
3  
1291 0.0 patients from county 8 are assigned to facility  
3  
1292 0.0 patients from county 9 are assigned to facility  
3  
1293  
1294 200.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 3  
1295 -----  
-----  
1296 0.0 patients from county 1 are assigned to facility  
4  
1297 0.0 patients from county 2 are assigned to facility  
4  
1298 223.0 patients from county 3 are assigned to  
facility 4  
1299 0.0 patients from county 4 are assigned to facility  
4  
1300 0.0 patients from county 5 are assigned to facility  
4  
1301 0.0 patients from county 6 are assigned to facility  
4  
1302 0.0 patients from county 7 are assigned to facility  
4  
1303 0.0 patients from county 8 are assigned to facility  
4  
1304 0.0 patients from county 9 are assigned to facility  
4  
1305  
1306 223.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 4  
1307 -----  
-----  
1308 0.0 patients from county 1 are assigned to facility  
5  
1309 0.0 patients from county 2 are assigned to facility  
5  
1310 0.0 patients from county 3 are assigned to facility  
5  
1311 281.0 patients from county 4 are assigned to

1311 facility 5  
1312 0.0 patients from county 5 are assigned to facility  
5  
1313 0.0 patients from county 6 are assigned to facility  
5  
1314 0.0 patients from county 7 are assigned to facility  
5  
1315 0.0 patients from county 8 are assigned to facility  
5  
1316 0.0 patients from county 9 are assigned to facility  
5  
1317  
1318 281.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 5  
1319 -----  
-----  
1320 0.0 patients from county 1 are assigned to facility  
6  
1321 0.0 patients from county 2 are assigned to facility  
6  
1322 0.0 patients from county 3 are assigned to facility  
6  
1323 0.0 patients from county 4 are assigned to facility  
6  
1324 281.0 patients from county 5 are assigned to  
facility 6  
1325 0.0 patients from county 6 are assigned to facility  
6  
1326 0.0 patients from county 7 are assigned to facility  
6  
1327 0.0 patients from county 8 are assigned to facility  
6  
1328 0.0 patients from county 9 are assigned to facility  
6  
1329  
1330 281.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 6  
1331 -----  
-----  
1332 0.0 patients from county 1 are assigned to facility  
7

1333	0.0 patients from county 2 are assigned to facility 7
1334	6.0 patients from county 3 are assigned to facility 7
1335	0.0 patients from county 4 are assigned to facility 7
1336	50.0 patients from county 5 are assigned to facility 7
1337	166.0 patients from county 6 are assigned to facility 7
1338	0.0 patients from county 7 are assigned to facility 7
1339	0.0 patients from county 8 are assigned to facility 7
1340	0.0 patients from county 9 are assigned to facility 7
1341	
1342	222.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO facility 7
1343	----- -----
1344	0.0 patients from county 1 are assigned to facility 8
1345	0.0 patients from county 2 are assigned to facility 8
1346	0.0 patients from county 3 are assigned to facility 8
1347	0.0 patients from county 4 are assigned to facility 8
1348	0.0 patients from county 5 are assigned to facility 8
1349	200.0 patients from county 6 are assigned to facility 8
1350	0.0 patients from county 7 are assigned to facility 8
1351	0.0 patients from county 8 are assigned to facility 8
1352	0.0 patients from county 9 are assigned to facility 8
1353	
1354	200.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO

1354 facility 8  
1355 -----  
-----  
1356 0.0 patients from county 1 are assigned to facility  
9  
1357 0.0 patients from county 2 are assigned to facility  
9  
1358 0.0 patients from county 3 are assigned to facility  
9  
1359 0.0 patients from county 4 are assigned to facility  
9  
1360 0.0 patients from county 5 are assigned to facility  
9  
1361 0.0 patients from county 6 are assigned to facility  
9  
1362 250.0 patients from county 7 are assigned to  
facility 9  
1363 0.0 patients from county 8 are assigned to facility  
9  
1364 0.0 patients from county 9 are assigned to facility  
9  
1365  
1366 250.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 9  
1367 -----  
-----  
1368 0.0 patients from county 1 are assigned to facility  
10  
1369 0.0 patients from county 2 are assigned to facility  
10  
1370 0.0 patients from county 3 are assigned to facility  
10  
1371 0.0 patients from county 4 are assigned to facility  
10  
1372 0.0 patients from county 5 are assigned to facility  
10  
1373 0.0 patients from county 6 are assigned to facility  
10  
1374 125.0 patients from county 7 are assigned to  
facility 10  
1375 0.0 patients from county 8 are assigned to facility

1375 10  
1376 0.0 patients from county 9 are assigned to facility  
10  
1377  
1378 125.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 10  
1379 -----  
-----  
1380 0.0 patients from county 1 are assigned to facility  
11  
1381 0.0 patients from county 2 are assigned to facility  
11  
1382 0.0 patients from county 3 are assigned to facility  
11  
1383 0.0 patients from county 4 are assigned to facility  
11  
1384 0.0 patients from county 5 are assigned to facility  
11  
1385 161.0 patients from county 6 are assigned to  
facility 11  
1386 0.0 patients from county 7 are assigned to facility  
11  
1387 0.0 patients from county 8 are assigned to facility  
11  
1388 0.0 patients from county 9 are assigned to facility  
11  
1389  
1390 161.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 11  
1391 -----  
-----  
1392 0.0 patients from county 1 are assigned to facility  
12  
1393 0.0 patients from county 2 are assigned to facility  
12  
1394 0.0 patients from county 3 are assigned to facility  
12  
1395 0.0 patients from county 4 are assigned to facility  
12  
1396 0.0 patients from county 5 are assigned to facility  
12

1397 0.0 patients from county 6 are assigned to facility  
12

1398 0.0 patients from county 7 are assigned to facility  
12

1399 28.0 patients from county 8 are assigned to  
facility 12

1400 272.0 patients from county 9 are assigned to  
facility 12

1401

1402 300.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 12

1403 -----  
-----

1404 0.0 patients from county 1 are assigned to facility  
13

1405 0.0 patients from county 2 are assigned to facility  
13

1406 0.0 patients from county 3 are assigned to facility  
13

1407 0.0 patients from county 4 are assigned to facility  
13

1408 0.0 patients from county 5 are assigned to facility  
13

1409 0.0 patients from county 6 are assigned to facility  
13

1410 94.0 patients from county 7 are assigned to  
facility 13

1411 206.0 patients from county 8 are assigned to  
facility 13

1412 0.0 patients from county 9 are assigned to facility  
13

1413

1414 300.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 13

1415 -----  
-----

1416 0.0 patients from county 1 are assigned to facility  
14

1417 0.0 patients from county 2 are assigned to facility  
14

1418 0.0 patients from county 3 are assigned to facility

1418 14  
1419 0.0 patients from county 4 are assigned to facility  
14  
1420 0.0 patients from county 5 are assigned to facility  
14  
1421 0.0 patients from county 6 are assigned to facility  
14  
1422 0.0 patients from county 7 are assigned to facility  
14  
1423 0.0 patients from county 8 are assigned to facility  
14  
1424 228.0 patients from county 9 are assigned to  
facility 14  
1425  
1426 228.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 14  
1427 -----  
-----  
1428 57.0 patients from county 1 are assigned to  
facility 15  
1429 43.0 patients from county 2 are assigned to  
facility 15  
1430 0.0 patients from county 3 are assigned to facility  
15  
1431 0.0 patients from county 4 are assigned to facility  
15  
1432 0.0 patients from county 5 are assigned to facility  
15  
1433 0.0 patients from county 6 are assigned to facility  
15  
1434 0.0 patients from county 7 are assigned to facility  
15  
1435 0.0 patients from county 8 are assigned to facility  
15  
1436 0.0 patients from county 9 are assigned to facility  
15  
1437  
1438 100.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 15  
1439 -----  
-----

1440 0.0 patients from county 1 are assigned to facility  
16  
1441 0.0 patients from county 2 are assigned to facility  
16  
1442 0.0 patients from county 3 are assigned to facility  
16  
1443 0.0 patients from county 4 are assigned to facility  
16  
1444 0.0 patients from county 5 are assigned to facility  
16  
1445 0.0 patients from county 6 are assigned to facility  
16  
1446 0.0 patients from county 7 are assigned to facility  
16  
1447 0.0 patients from county 8 are assigned to facility  
16  
1448 0.0 patients from county 9 are assigned to facility  
16  
1449  
1450 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 16  
1451 -----  
-----  
1452 0.0 patients from county 1 are assigned to facility  
17  
1453 0.0 patients from county 2 are assigned to facility  
17  
1454 100.0 patients from county 3 are assigned to  
facility 17  
1455 0.0 patients from county 4 are assigned to facility  
17  
1456 0.0 patients from county 5 are assigned to facility  
17  
1457 0.0 patients from county 6 are assigned to facility  
17  
1458 0.0 patients from county 7 are assigned to facility  
17  
1459 0.0 patients from county 8 are assigned to facility  
17  
1460 0.0 patients from county 9 are assigned to facility  
17

1461  
1462 100.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO facility 17  
1463 -----  
-----  
1464 13.0 patients from county 1 are assigned to facility 18  
1465 0.0 patients from county 2 are assigned to facility 18  
1466 0.0 patients from county 3 are assigned to facility 18  
1467 58.0 patients from county 4 are assigned to facility 18  
1468 29.0 patients from county 5 are assigned to facility 18  
1469 0.0 patients from county 6 are assigned to facility 18  
1470 0.0 patients from county 7 are assigned to facility 18  
1471 0.0 patients from county 8 are assigned to facility 18  
1472 0.0 patients from county 9 are assigned to facility 18  
1473  
1474 100.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO facility 18  
1475 -----  
-----  
1476 0.0 patients from county 1 are assigned to facility 19  
1477 0.0 patients from county 2 are assigned to facility 19  
1478 0.0 patients from county 3 are assigned to facility 19  
1479 0.0 patients from county 4 are assigned to facility 19  
1480 0.0 patients from county 5 are assigned to facility 19  
1481 0.0 patients from county 6 are assigned to facility 19  
1482 0.0 patients from county 7 are assigned to facility

1482 19  
1483 0.0 patients from county 8 are assigned to facility  
19  
1484 0.0 patients from county 9 are assigned to facility  
19  
1485  
1486 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 19  
1487 -----  
-----  
1488 0.0 patients from county 1 are assigned to facility  
20  
1489 0.0 patients from county 2 are assigned to facility  
20  
1490 0.0 patients from county 3 are assigned to facility  
20  
1491 0.0 patients from county 4 are assigned to facility  
20  
1492 0.0 patients from county 5 are assigned to facility  
20  
1493 0.0 patients from county 6 are assigned to facility  
20  
1494 0.0 patients from county 7 are assigned to facility  
20  
1495 0.0 patients from county 8 are assigned to facility  
20  
1496 0.0 patients from county 9 are assigned to facility  
20  
1497  
1498 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 20  
1499 -----  
-----  
1500 0.0 patients from county 1 are assigned to facility  
21  
1501 0.0 patients from county 2 are assigned to facility  
21  
1502 0.0 patients from county 3 are assigned to facility  
21  
1503 0.0 patients from county 4 are assigned to facility  
21

1504 0.0 patients from county 5 are assigned to facility  
21  
1505 0.0 patients from county 6 are assigned to facility  
21  
1506 0.0 patients from county 7 are assigned to facility  
21  
1507 0.0 patients from county 8 are assigned to facility  
21  
1508 0.0 patients from county 9 are assigned to facility  
21  
1509  
1510 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 21  
1511 -----  
-----  
1512 0.0 patients from county 1 are assigned to facility  
22  
1513 0.0 patients from county 2 are assigned to facility  
22  
1514 0.0 patients from county 3 are assigned to facility  
22  
1515 0.0 patients from county 4 are assigned to facility  
22  
1516 0.0 patients from county 5 are assigned to facility  
22  
1517 0.0 patients from county 6 are assigned to facility  
22  
1518 0.0 patients from county 7 are assigned to facility  
22  
1519 0.0 patients from county 8 are assigned to facility  
22  
1520 0.0 patients from county 9 are assigned to facility  
22  
1521  
1522 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 22  
1523 -----  
-----  
1524 0.0 patients from county 1 are assigned to facility  
23  
1525 0.0 patients from county 2 are assigned to facility

1525 23  
1526 0.0 patients from county 3 are assigned to facility  
23  
1527 0.0 patients from county 4 are assigned to facility  
23  
1528 0.0 patients from county 5 are assigned to facility  
23  
1529 0.0 patients from county 6 are assigned to facility  
23  
1530 0.0 patients from county 7 are assigned to facility  
23  
1531 0.0 patients from county 8 are assigned to facility  
23  
1532 0.0 patients from county 9 are assigned to facility  
23  
1533  
1534 0.0 TOTAL PATIENTS FROM county 9 ARE ASSIGNED TO  
facility 23  
1535 -----  
-----  
1536  
1537 Process finished with exit code 0  
1538