

```
>> UpdatedPMCLAP
```

```
Radius: 750, Facilities opened: 10
```

```
Epochs: 101
```

```
Fitness: 21460.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

409971	435014
410230	434688
410071	434703
409969	435509
408094	433305
409823	434877
410107	437014
408012	434144
409968	435327
407933	433628

```
Radius: 750, Facilities opened: 10
```

```
Epochs: 101
```

```
Fitness: 21460.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

407670	433678
407839	433681
410201	436904
412633	436991
408094	433305
409892	434941
407041	433312
409810	435094
409517	434818
409939	435089

```
Radius: 750, Facilities opened: 10
```

```
Epochs: 101
```

```
Fitness: 21460.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

ans =

409732	434890
407553	433546
410230	434688
412018	436301
409892	435208
409944	435714
408206	434028
409823	434877
409923	434767
412086	436729

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 21460.000000

ans =

'Facility Coordinates'

ans =

410064	435263
410079	435087
408206	434028
408094	433305
409638	434867
412018	436301
409810	435094
409452	434831
407931	433784
409962	434875

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 21459.000000

ans =

'Facility Coordinates'

ans =

409972	435164
410359	435086
407543	433689
407856	434609
407558	433845
407856	434609

407856	434609
407856	434609
407856	434609
407698	434420

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 21460.000000
ans =

'Facility Coordinates'

ans =

410307	434939
409892	435208
408012	434144
407041	433312
409833	434956
409638	434867
412633	436991
409684	434946
412018	436301
408094	433305

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 21460.000000
ans =

'Facility Coordinates'

ans =

409968	435327
409812	434774
412018	436301
410064	435263
410201	436904
409971	435014
408206	434028
410230	434688
412220	436800
409962	434875

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 21460.000000

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

409684	434946
409968	435327
409892	435208
408206	434028
408012	434144
409452	434831
412086	436729
409684	434946
410042	434928
408094	433305

```
Radius: 750, Facilities opened: 10
```

```
Epochs: 101
```

```
Fitness: 21460.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

409452	434831
409732	434890
409971	435014
409684	434946
408206	434028
410230	434688
412064	436402
409968	435327
409939	435089
408012	434144

```
Radius: 750, Facilities opened: 10
```

```
Epochs: 101
```

```
Fitness: 21460.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

410201	436904
409939	435089

408206	434028
409969	435509
409700	434754
409892	435208
411929	436289
410079	435087
408012	434144
410230	434688

Average Fitness: 21459.900000 +
Max Fitness: 21460.000000
Standard Deviation: 0.300000
Average Time: 66.302743
counters =

775194	65055	24	27
--------	-------	----	----

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35360.000000
ans =

'Facility Coordinates'

ans =

409447	433178
409302	435225
407473	434377
411474	435516
412434	436410
407666	434347
407473	434377
409858	436418
410894	434903
410179	435225

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35360.000000
ans =

'Facility Coordinates'

ans =

409223	433668
407917	434722

409136	436838
412556	436062
409210	435093
409517	434818
407378	434689
407703	434268
410123	434968
410920	435029

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 35358.000000

ans =

'Facility Coordinates'

ans =

407873	434382
407818	434542
409701	436391
409837	436155
407500	434876
409711	436281
409264	435295
409700	434754
409711	436281
411069	434818

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 35360.000000

ans =

'Facility Coordinates'

ans =

410113	434847
409517	434818
408840	435022
407698	434420
409401	433812
412556	436062
409286	436828
410830	435132
411474	435516
411069	434818

```
Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35360.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

410047	434778
409277	435420
410707	434687
410780	434836
410780	434836
410780	434836
410780	434836
410780	434836
410780	434836
410920	435029

```
Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35360.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

407587	434751
407246	434266
407332	434352
410015	436193
409819	434672
409553	436813
409020	435056
410067	435592
412492	436363
409271	433151

```
Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35358.000000
ans =
```

```
'Facility Coordinates'
```

ans =

410707	434687
410707	434687
410826	434878
410737	434792
410780	434836
410707	434687
410707	434687
410707	434687
410780	434836
410920	435029

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 35360.000000

ans =

'Facility Coordinates'

ans =

409401	433812
408310	433632
410252	435543
407101	434011
409517	434818
407928	434839
411474	435516
410830	435132
409795	436554
408840	435022

Radius: 750, Facilities opened: 10

Epochs: 108

Fitness: 35360.000000

ans =

'Facility Coordinates'

ans =

408310	433632
409213	436836
412624	436427
407096	434374
409223	433668
409262	434873
409109	435153

410042	434928
409109	435153
409298	435127

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 35360.000000
ans =

'Facility Coordinates'

ans =

407587	434751
409680	436697
412387	436470
409447	433178
407399	434317
407191	434531
410067	435592
409434	435030
410816	435249
411474	435516

Average Fitness: 35359.600000 +
Max Fitness: 35360.000000
Standard Deviation: 0.800000
Average Time: 70.726610
counters =

735072	111108	0	0
--------	--------	---	---

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =

'Facility Coordinates'

ans =

406450	433586
410783	434971
409811	435545
410556	434848
410224	436222
410416	435631
407856	434609

408474	433992
410808	435074
410015	436193

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =

'Facility Coordinates'

ans =

409788	436708
410816	435249
410113	436329
409609	435201
408717	433801
408432	433440
407332	434352
411601	434320
410416	435631
411971	435612

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =

'Facility Coordinates'

ans =

408932	434976
411459	435554
407917	434722
410416	435631
409811	435545
409490	434182
408535	433862
406840	434204
408215	434274
410964	434773

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45389.000000
ans =

'Facility Coordinates'

ans =

410492	434950
409684	434946
410492	434950
410224	436222
407332	434352
408616	433704
409968	435327
410492	434950
408487	433708
410830	435132

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 45390.000000

ans =

'Facility Coordinates'

ans =

410780	434673
411780	435701
409812	435857
410780	434673
409192	435244
407943	434001
410894	434903
409638	435143
406450	433586
409570	435942

Radius: 750, Facilities opened: 10

Epochs: 101

Fitness: 45390.000000

ans =

'Facility Coordinates'

ans =

408506	433774
407493	434671
406450	433586

408717	433801
409667	436825
408069	434921
410113	436329
408932	434976
411459	435554
409830	435210

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =

'Facility Coordinates'

ans =

409670	435514
407638	434125
410224	436222
409490	434182
408474	433992
409892	435208
408366	433145
408717	433801
410416	435631
410556	434848

Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =

'Facility Coordinates'

ans =

410416	435631
410783	434971
409565	435307
410830	435132
410113	436329
411764	436425
407856	434609
409892	435208
408535	433862
407873	434382

```
Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45390.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

407703	434483
411802	436348
410964	434773
409577	435510
409624	435752
408679	433693
412202	436456
408487	433708
408215	434274
410015	436193

```
Radius: 750, Facilities opened: 10
Epochs: 101
Fitness: 45389.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

409858	436418
407644	434553
409539	434954
409711	436281
409372	436561
409691	436539
409609	435201
409355	436788
409711	436281
409711	436281

```
Average Fitness: 45389.800000 +
Max Fitness: 45390.000000
Standard Deviation: 0.400000
Average Time: 70.093103
counters =
```

761854	78434	0	0
--------	-------	---	---

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 74359.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

412434	436410
410780	434673
410556	434848
410656	435029
408206	434028
408578	434478
410780	434673
407432	433551
410746	435470
408474	433992
408179	433952
410651	434905
406848	435463
407694	433514
408897	434650
408506	433774
410556	434848
408712	433528
408992	434574
408703	434274

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 74357.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

410684	435340
410684	435340
411768	435535
410556	434954
408651	434460
410721	435245
408992	434574
408505	434233
408346	433540
412288	435888
410618	434776

407617	433224
411929	436289
409123	434596
408505	434233
409050	434674
410651	434905
406542	434972
408608	433603
406848	435463

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74358.000000

ans =

'Facility Coordinates'

ans =

409662	434465
409715	434552
408519	434341
408178	433148
410721	435245
410780	434836
411926	435590
408206	434028
409192	434265
408179	433952
411715	435683
408338	433394
408159	433341
408456	433355
407960	433292
410604	435208
410556	434954
409050	434674
408531	434581
408474	433992

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74359.000000

ans =

'Facility Coordinates'

ans =

410559	435512
410371	435374
410371	435374
408600	434315
409411	434362
409411	434362
410545	435076
410430	435369
409715	434552
409123	434596
410622	435569
410371	435374
410684	435564
410371	435374
410430	435251
410371	435374
410371	435374
410371	435374
410430	435369
410371	435374

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74354.000000

ans =

'Facility Coordinates'

ans =

410721	435245
408962	433786
408138	433801
409715	434552
408522	433432
411561	435330
408203	433446
408618	434062
408346	433540
409487	433830
410783	434971
410637	435315
408777	434870
408992	434574
408600	434315
412140	436120
408897	434547
408121	433547
408519	434341
407041	433312


```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 74352.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

409192	434265
409426	434622
410511	435237
410298	435298
410298	435298
410684	435564
410298	435298
410298	435298
410298	435298
410430	435369
410298	435298
410298	435298
410298	435298
410637	435315
410593	435427
410347	435267
410511	435237
410298	435298
410298	435298
410593	435427

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 74352.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

410684	435340
410593	435427
409479	434592
408138	433801
410298	435298
410637	435315
410298	435298
410298	435298
410298	435298
410430	435369

410298	435298
410430	435369
410298	435298
410684	435564
410298	435298
410298	435298
410545	435076
410298	435298
410347	435267
410298	435298

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74360.000000

ans =

'Facility Coordinates'

ans =

408138	433801
408259	433586
410604	435208
412581	436944
410651	434905
408745	433586
409267	434380
412064	436402
410650	435170
410707	434687
408392	434637
411561	435330
409411	434362
410805	435484
408816	434275
409107	434290
409715	434552
406542	434972
410556	434848
408487	433708

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74321.000000

ans =

'Facility Coordinates'

ans =

410325	435510
410325	435510
410721	435245
410684	435340
410325	435510
410325	435510
410325	435510
410622	435569
410325	435510
410325	435510
410453	435478
410709	435710
410556	435600
410325	435510
410325	435510
410325	435510
410453	435478
410709	435710
410394	435496
410325	435510

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 74322.000000

ans =

'Facility Coordinates'

ans =

410604	435208
410735	435556
410325	435510
410453	435478
410325	435510
410325	435510
410325	435510
410593	435427
410325	435510
410325	435510
410325	435510
410453	435478
410325	435510
410684	435564
410325	435510
410622	435569
410325	435510
410559	435512
410325	435510
410325	435510

```
Average Fitness: 74349.400000 +  
Max Fitness: 74360.000000  
Standard Deviation: 14.214078  
Average Time: 151.798635  
counters =
```

```
1384197      56081      1      1
```

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 42917.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
409298      435127  
409939      435089  
412064      436402  
407625      433791  
407911      433922  
408932      434976  
409683      435349  
407558      433845  
409277      435420  
409939      435089  
409609      435201  
410107      437014  
409264      435295  
412431      436825  
410230      434688  
409688      435618  
410014      436903  
407911      433922  
407625      433791  
409700      434754
```

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 42917.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

410201	436904
409609	435201
407553	433546
409688	435618
410064	435263
408470	434125
407911	433922
408470	434125
410230	434688
412064	436402
409892	435208
409892	434941
410201	436904
409638	435143
409962	434875
409892	434941
408932	434976
408094	433305
407391	433476
412633	436991

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 42918.000000

ans =

'Facility Coordinates'

ans =

409968	435327
410201	436904
408932	434976
409798	434991
407839	433681
411613	436244
409298	435127
411864	435573
409939	435089
408179	433952
410230	434688
410201	436904
409688	435618
412624	436427
409670	435514
409577	435510
409770	434593
409262	435017
411943	436399
412568	436561

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 42917.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

409553	435074
410201	436904
408932	434976
408094	433305
412202	436456
409469	435389
409972	435164
409875	435755
409298	435127
408474	433992
409277	435420
410201	436904
410230	434688
407391	433476
410042	434928
412431	436825
407608	433396
409577	435510
408474	433992
410359	435086

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 42917.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

412633	436991
409798	434991
409610	434773
412534	436629
410201	436904
408012	434144
409718	435043
411973	435761
408179	433952
409969	435509

407858	434164
409816	437011
409920	434854
408094	433305
409811	435545
409833	434956
412284	436333
407432	433551
410230	434688
412284	436333

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 42917.000000

ans =

'Facility Coordinates'

ans =

408012	434144
409210	435093
409816	437011
410014	436903
412633	436991
408932	434976
409684	434946
410230	434688
409754	435326
408094	433305
409939	435089
412202	436456
410107	437014
408179	433952
409624	435752
409683	435349
409302	435225
409738	434678
409972	435164
409960	436901

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 42917.000000

ans =

'Facility Coordinates'

ans =

407553	433546
409816	437011
409262	434873
409833	434956
409553	435074
409798	434991
407911	433922
409620	435615
410230	434688
407432	433551
409732	434890
409609	435201
409378	435563
410014	436903
408094	433305
410072	436904
409302	435225
412086	436729
412064	436402
410201	436904

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 42918.000000

ans =

'Facility Coordinates'

ans =

412629	436167
412387	436470
412330	436598
409798	434991
407483	433605
409816	437011
409968	435327
409517	434818
410072	436904
408094	433305
410201	436904
408470	434125
409962	434875
410230	434688
409610	434773
410201	436904
407911	433922
407507	433490
408474	433992
410064	435263


```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 42916.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

409718	435043
408094	433305
410201	436904
412431	436825
409718	435043
409670	435514
409378	435463
407911	433922
409539	434954
408206	434028
408872	433690
410359	435086
410079	435087
410072	436904
407300	433763
410201	436904
412064	436402
409434	435030
410230	434688
409969	435509

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 42917.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

409939	435089
412018	436301
407911	433922
409378	435463
409830	435210
410107	437014
408094	433305
409277	435420
409609	435201

410107	437014
410359	435086
407553	433546
412431	436825
409810	435094
410230	434688
407931	433784
409262	434873
410079	435087
410107	437014
410201	436904

Average Fitness: 42917.100000 +
Max Fitness: 42918.000000
Standard Deviation: 0.538516
Average Time: 144.344884
counters =

1354120	86015	122	39
---------	-------	-----	----

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 101992.000000
ans =

'Facility Coordinates'

ans =

410209	435297
410812	435963
410244	435175
408597	436868
410169	434467
409892	435208
409920	434854
409892	435208
409789	434303
409892	435208
409892	434941
409837	434359
410064	435263
409892	435208
410157	435130
410079	435087
409892	435208
409939	435089
409892	435208
409892	435208

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 101999.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

407858	434164
411002	435664
410307	434939
408474	433992
411272	435509
410348	436049
412629	436167
410394	435919
411057	435110
409832	434522
408644	436892
407649	434014
411034	435304
410735	435854
409428	433991
411217	435493
408410	433567
409965	434199
409591	434222
410394	435919

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 101999.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

407011	434136
411768	435535
408348	433257
407005	434344
410320	436562
410037	434213
410115	434226
408122	434634
407200	433724
410709	435710

410695	435964
410946	435666
410395	436240
410468	435817
407544	433937
412140	436120
410430	435251
411921	435748
410888	435542
409591	434222

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 102000.000000

ans =

'Facility Coordinates'

ans =

407858	434164
411326	435084
412064	436402
409718	433959
407666	434347
410502	435734
411217	435493
409513	433369
410037	434213
407413	433750
410763	435977
410622	435569
410797	436186
411250	435070
411062	435695
410437	435739
406666	435023
408122	434634
406933	434564
410888	435542

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 102000.000000

ans =

'Facility Coordinates'

ans =

410417	436035
409718	433959
410488	436025
412458	436009
408644	436892
407544	433937
408474	433992
410417	436035
411069	434818
407713	433877
410778	436090
411002	435664
408432	433440
411459	435554
410946	435666
411062	435695
407158	434149
410479	435620
407703	434483
410037	434213

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 102000.000000

ans =

'Facility Coordinates'

ans =

408514	436845
411062	435695
412479	436076
407955	434517
410324	436701
408474	433992
409718	433959
410778	436090
411034	435304
409513	433369
409796	434120
410718	436100
407788	433274
408346	433540
411051	435572
410885	435668
412401	435898
411269	435392
410570	436117
410498	435901

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 102000.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

411034	435304
408122	434634
407977	434067
409718	433959
411971	435612
410885	435668
410580	435727
410888	435542
410234	436518
410153	434343
410371	435374
410359	435086
410709	435710
408432	433440
407633	434642
410416	435631
410417	436035
411308	434721
410205	436634
408514	436845

```
Radius: 750, Facilities opened: 20  
Epochs: 101  
Fitness: 102000.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

410675	435867
409796	434120
407955	434517
410834	435710
408348	433257
410888	435542
410468	435817
412140	436120
410115	434226

410888	435542
407767	434214
410468	435817
407617	434203
410559	435512
410348	436049
411459	435554
411308	434721
410623	435997
408514	436845
409591	434222

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 102000.000000
ans =

'Facility Coordinates'

ans =

412374	435958
408012	434144
410502	435734
411069	434818
408514	436845
411308	434721
407952	434326
407300	433763
410735	436203
412374	435958
411327	434980
411176	435474
410088	434282
411217	435493
411037	434936
410205	436634
408122	434634
409591	434222
410115	434226
410511	435237

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 102000.000000
ans =

'Facility Coordinates'

ans =

409965	434199
407413	433750
410888	435542
412374	435958
410153	434343
408206	434028
410955	435841
411459	435554
410395	436240
410763	435977
410622	435569
410394	435919
408644	436892
410468	435817
411051	435572
410885	435668
407952	434326
410778	436090
411069	434818
408260	433162

Average Fitness: 101999.000000 +

Max Fitness: 102000.000000

Standard Deviation: 2.366432

Average Time: 157.288368

counters =

1405363	34932	0	1
---------	-------	---	---

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 70716.000000

ans =

'Facility Coordinates'

ans =

409765	435617
409401	433812
407617	434203
409302	435225
406450	433586
409260	435538
407500	434876
411474	435516
410169	435417
410816	435249

409447	433178
409264	435295
410939	434936
409892	435208
409167	435416
407587	434751
410958	434862
409968	435327
410964	434773
412129	436581

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70716.000000
ans =

'Facility Coordinates'

ans =

412479	436076
407709	434771
407096	434374
410705	435132
409160	436346
408840	435022
410744	435073
409150	436607
412091	436313
410113	434847
410737	434792
409691	436539
410939	434936
409016	436511
409210	435093
408962	433786
407096	434374
409837	436155
409264	435295
409447	433178

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70717.000000
ans =

'Facility Coordinates'

ans =

407399	434317
409711	436281
412091	436313
409711	436281
410783	434971
409711	436281
409262	434873
410744	435073
410920	435029
409213	436540
409447	433178
407644	434553
411929	436289
410964	434773
412092	435705
406818	435276
409962	434875
411069	434818
407288	434536
408310	433632

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 70716.000000

ans =

'Facility Coordinates'

ans =

409298	435127
409944	435714
411069	434818
410015	436193
407943	434001
409192	435244
409401	433812
409192	435244
409553	435074
407928	434839
406450	433586
410816	435249
409447	433178
410958	434862
409971	435014
409429	436834
410220	435613
411474	435516
412288	435888
409822	435466

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70718.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

407587	434751
412488	435944
410958	434862
409298	435127
409223	433668
409210	435093
408310	433632
410015	436193
409691	436539
409691	436539
409192	435244
407846	434923
407615	434816
409213	436836
410830	435132
410920	435029
411474	435516
410079	435087
410964	434773
409434	435030

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70697.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

410812	435963
410580	435727
410789	435850
410437	435739
410437	435739
410883	436197
410437	435739
410437	435739
410437	435739

410437	435739
410580	435727
410502	435734
410437	435739
410437	435739
410437	435739
410437	435739
410437	435739
410812	435963
410437	435739
410502	435734

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70719.000000
ans =

'Facility Coordinates'

ans =

409638	435143
410067	435592
409223	433668
410244	435175
410894	434903
406933	434564
409447	433178
410894	434903
409096	433937
408310	433632
412354	436001
411069	434818
410015	436193
407500	434876
410744	435073
410894	434903
409795	436554
407644	434553
411474	435516
410816	435249

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 70720.000000
ans =

'Facility Coordinates'

ans =

407191	434531
410958	434862
410220	435613
408310	433632
412236	436394
411474	435516
407821	434427
410894	434903
410830	435132
409447	433178
409192	435244
409109	435153
409969	435509
409429	436834
409038	435235
407873	434382
410920	435029
409264	435295
410015	436193
409810	435094

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 70716.000000

ans =

'Facility Coordinates'

ans =

409020	435056
410783	434971
409255	436694
407096	434374
406818	435276
409223	433668
409517	434818
410744	435073
409447	433178
409575	436677
410894	434903
410301	435384
409429	436834
411474	435516
409096	433937
412129	436581
411398	435412
407821	434427
407500	434876

408310 433632

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 70718.000000

ans =

'Facility Coordinates'

ans =

409271	433151
410808	435074
407170	434329
408310	433632
410780	434836
411037	434936
410939	434936
409401	433812
410964	434773
406818	435276
409972	435164
412458	436009
409302	435225
410041	435866
407698	434420
410808	435074
407178	434623
410744	435073
410042	434928
410067	435592

Average Fitness: 70715.300000 +

Max Fitness: 70720.000000

Standard Deviation: 6.245799

Average Time: 160.251683

counters =

1377471	62825	0	0
---------	-------	---	---

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119478.000000

ans =

'Facility Coordinates'

ans =

411069	434818
410888	435542
411846	435977
408046	433484
409267	434380
408651	434460
409271	433151
410153	434343
410622	435569
409512	436236
408206	434028
409662	434465
409096	433937
410847	435782
411802	436348
408897	434650
410637	435315
411090	435533
408310	433632
407625	434703

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119476.000000

ans =

'Facility Coordinates'

ans =

410622	435569
410637	435315
412434	436410
408094	433305
408600	434315
411971	435612
407649	434014
408489	434590
410888	435542
409512	436236
409662	434465
411057	435110
409965	434199
411500	435977
408428	434379
408305	433698
411057	435110
407117	433070
411308	434721
408489	434590

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 119477.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

412139	433524
412255	433788
412465	433468
408900	434293
409762	433858
407117	433070
409073	434471
412092	435705
410895	435848
412253	435931
408906	434723
412300	433668
410637	435315
407666	434347
408150	433880
410888	435542
409596	433463
409512	436236
411926	435590
411034	435304

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 119479.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

408869	434012
409792	435978
411780	435701
409242	434616
410637	435315
408600	434315
406450	433586
409037	434325
409718	433959

408138	433801
407617	433224
411090	435533
409366	433893
409009	434454
407873	434382
410888	435542
410888	435542
411034	435304
409596	433463
411846	435977

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 119478.000000
ans =

'Facility Coordinates'

ans =

411250	435070
407911	433922
408392	434637
411272	435509
409591	434570
410622	435569
407694	433514
408778	434739
408138	433801
410637	435315
409770	434593
410946	435666
412018	436301
409434	434132
410888	435542
409681	433912
408897	434650
409369	433716
409275	435982
408519	434341

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 119477.000000
ans =

'Facility Coordinates'

ans =

408179	433952
411002	435664
410637	435315
407617	433224
408906	434723
408094	433305
409662	434465
411217	435493
409271	433151
407666	434347
410169	434467
409401	433812
411327	434980
409441	433314
411874	436309
408346	433756
410888	435542
408428	434379
409192	434265
410153	434343

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119474.000000

ans =

'Facility Coordinates'

ans =

409596	433463
408138	433801
410946	435666
409662	434465
412018	436301
411398	435412
408809	433751
409277	435420
407117	433070
408809	433751
409107	434290
411398	435412
408746	434417
408231	434104
410888	435542
407839	433681
409271	433151
408906	434723
411299	435581

410637 435315

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119467.000000

ans =

'Facility Coordinates'

ans =

407378	434689
409131	434030
407191	434531
411002	435664
411002	435664
408531	434581
409401	433812
407432	433551
408386	434010
410888	435542
410834	435710
408872	433690
408906	434723
407178	434623
408206	434028
409875	435755
407952	434326
406840	434204
406933	434564
411874	436309

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119479.000000

ans =

'Facility Coordinates'

ans =

412092	435705
409192	434265
408138	433801
410885	435668
408231	434104
412354	436001
408386	434010
408310	433632

409512	436236
409271	433151
411069	434818
408392	434637
409401	433812
409513	433369
411176	435474
410153	434343
410885	435668
410637	435315
408179	433952
409401	433812

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 119477.000000

ans =

'Facility Coordinates'

ans =

410946	435666
408369	433823
409107	434290
409875	435755
408519	434341
410888	435542
408651	434460
408259	433586
411327	434980
409762	433858
410637	435315
412437	433525
412408	433588
407873	434382
411269	435392
411874	436309
412142	433645
409434	434132
412116	433724
408310	433632

Average Fitness: 119476.200000 +

Max Fitness: 119479.000000

Standard Deviation: 3.370460

Average Time: 163.280696

counters =

1379859	60437	0	0
---------	-------	---	---

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 102000.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

410205	436634
407767	434214
408432	433440
409547	434042
411062	435695
411069	434818
410153	434343
411326	435084
411148	435075
408514	436845
411057	435110
411308	434721
410502	435734
410681	436312
407858	434164
412458	436009
411921	435748
410468	435817
411768	435535
407856	434609

```
>> UpdatedPMCLAP
>> UpdatedPMCLAP
```

```
Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90778.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

406450	433586
410113	436329
407422	433137
407873	434382
409680	436697
408369	433823
409065	436786

410015	436193
410607	435053
410939	434936
408820	433623
409490	434182
407821	434427
411973	435761
411601	434320
408305	433698
409262	434873
408165	433621
412092	435705
409302	435225

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90777.000000
ans =

'Facility Coordinates'

ans =

410735	435556
409264	435295
410113	436329
408505	434233
409553	436813
409286	436828
410705	435132
410816	435249
409596	433463
409096	433937
408808	434639
410015	436193
409287	434206
410416	435631
410808	435074
407439	434507
411968	436435
409267	434380
408717	433801
409302	435225

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90780.000000
ans =

'Facility Coordinates'

ans =

410650	435170
409680	436697
408231	434104
408206	434028
410707	434687
409680	436697
410650	435170
407873	433397
407846	434923
409858	436418
409830	435210
410816	435249
408849	436707
410735	435556
408616	433704
411926	435590
410737	434792
408456	433355
409210	435093
407821	434427

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 90780.000000

ans =

'Facility Coordinates'

ans =

409007	436747
407170	434329
407191	434531
409442	436668
408272	434454
411459	435554
409429	436834
410964	434773
409892	435208
408506	433774
409830	435210
411926	435590
408717	433801
408474	433992
409277	435420
409667	436825
406804	434553

407413	433750
409822	435466
410556	434848

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90778.000000
ans =

'Facility Coordinates'

ans =

408816	434275
407413	433750
408906	434723
410015	436193
410964	434773
409050	434674
408962	433786
408369	433823
408962	433786
409638	435143
407952	434326
409546	436882
409490	434182
411971	435612
411601	434320
409539	434954
407246	434266
409830	435210
409020	435056
410556	434848

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90778.000000
ans =

'Facility Coordinates'

ans =

410707	434687
408717	433801
409123	434596
410894	434903
409972	435164
408906	434723

410113	436329
408369	433823
408012	434144
408906	434723
410607	435053
409262	434873
410783	434971
409286	436828
411780	435701
409638	435143
411459	435554
406450	433586
409490	434182
409286	436828

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 90775.000000

ans =

'Facility Coordinates'

ans =

409968	435327
407649	434014
408650	433823
409969	435509
407192	433963
408456	433355
410224	436222
409064	434594
407870	434680
409822	435466
409822	435466
411780	435701
409213	436836
411561	435330
409286	436828
408703	434274
408662	434157
408245	434407
409148	434442
409411	434362

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 90779.000000

ans =

'Facility Coordinates'

ans =

408489	434590
409638	435143
409968	435327
410113	436329
409050	434674
406450	433586
409667	436825
409684	434946
408272	434454
407398	434564
411968	436435
409490	434182
410416	435631
408487	433708
410556	434848
411601	434320
408650	433823
410783	434971
410808	435074
409148	434442

Radius: 750, Facilities opened: 20

Epochs: 101

Fitness: 90780.000000

ans =

'Facility Coordinates'

ans =

409090	434982
408717	433801
409469	435389
411601	434320
408069	434921
409020	435056
409442	436668
407544	433937
410805	435484
407870	434680
410780	434673
409469	435389
409114	436740
408203	433446
409539	434954
410780	434836

409057	436848
412511	436693
409255	436694
410737	434792

Radius: 750, Facilities opened: 20
Epochs: 101
Fitness: 90780.000000
ans =

'Facility Coordinates'

ans =

409553	436813
408178	433148
408474	433992
409512	436236
407870	434680
410556	434848
409512	436236
409680	436697
408012	434144
408717	433801
409539	434954
409541	436090
409065	436786
409701	436391
409512	436236
409160	436346
409322	436406
410920	435029
409016	436511
409512	436236

Average Fitness: 90778.500000 +
Max Fitness: 90780.000000
Standard Deviation: 1.565248
Average Time: 152.919422
counters =

1386948	53343	0	5
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Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 185838.000000
ans =

'Facility Coordinates'

ans =

410853	434804
408206	434028
409591	434570
408808	434639
409591	434570
410389	434885
408508	434788
410650	435170
409033	434769
411589	435949
412629	436167
408731	434657
408651	434460
410249	434330
410805	435484
410651	434905
408159	433341
408428	434379
411217	435493
411780	435701
411780	435701
410389	434885
409107	434290
408215	434274
410780	434673
410556	434848
408428	434498
408245	434407
410901	435964
411846	435977
409107	434290
410481	434658
411299	435581
408872	433690
410481	434658
411123	435729
410492	434950
410556	434954
407933	433628
406854	435551
408138	433801
408159	433341
408366	433145
409275	434314
407150	433400
406542	434972
410707	434687
408816	434275
408298	433266

412685 436830

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185785.000000

ans =

'Facility Coordinates'

ans =

410545	435076
410389	434885
410389	434885
408608	433603
410556	434848
408348	433257
408872	433690
407856	434609
408519	434341
410707	434687
408679	433693
410556	434848
407638	434125
409288	433872
407319	434153
411825	435555
407818	434542
407703	434483
407788	433274
407002	435313
411690	435995
409045	434202
408808	434639
408505	434233
408900	434293
410481	434658
411768	435535
409384	433134
409770	434593
410481	434658
411589	435949
409366	433893
408900	434293
412354	436001
408089	434539
409033	434769
409118	434226
407638	434125
408897	434547
410481	434658

409073	434471
411973	435761
410604	435208
409681	433912
408897	434547
408392	434637
410650	435170
409832	434522
410746	435470
407617	434203

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185785.000000

ans =

'Facility Coordinates'

ans =

410901	435964
407713	433877
406906	434328
408746	434417
410556	434848
410481	434658
409819	434672
410389	434885
409384	433134
406926	434172
406854	434684
410618	434776
408872	433690
409230	434159
408600	434315
409045	434202
408428	434498
408272	434454
411342	435526
410249	434330
410637	435315
408327	434678
412257	436738
407931	433784
410660	434732
411825	435555
409812	434774
410481	434658
407300	433763
407782	433454
411973	435761

410492	434950
410637	435315
408455	433224
409700	434754
408487	433708
409372	434355
411217	435493
406771	434500
408456	433355
407200	433724
410783	434971
411968	436435
410805	435484
408381	434917
411217	435493
408122	434634
408777	434870
409715	434552
407158	434149

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185829.000000

ans =

'Facility Coordinates'

ans =

407246	434266
408962	433786
410492	434950
408777	434870
410389	434885
411551	435166
407553	433546
410389	434885
407351	433708
409770	434593
410556	434954
409242	434616
409428	433991
407553	433546
411474	435516
409131	434030
410607	435053
407703	434268
410684	435340
406690	434858
409192	434265
410894	434903

409009	434454
407709	434771
409104	434347
407150	433400
406746	434273
410901	435964
412534	436629
410389	434885
410780	434836
410389	434885
412387	436470
410651	434905
409441	433314
407638	434125
409583	433734
410780	434673
408746	434417
408489	434590
408600	434315
411561	435330
410389	434885
408386	434010
407703	434483
408428	434498
410746	435470
408872	433690
408872	433690
409401	433812

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185780.000000

ans =

'Facility Coordinates'

ans =

408489	434590
408977	434240
410389	434885
408531	434581
407839	433681
408179	433952
408777	434870
410684	435564
410545	435076
410780	434673
409513	433369
408272	434454
410249	434330

408381	434917
409738	434678
412220	436800
411459	435554
408869	434012
410545	435076
409369	433716
411888	436460
410238	434566
408245	434407
408392	434637
409762	433858
408717	433801
407413	433750
408731	434657
408346	433540
406542	434972
409715	434552
410389	434885
409718	433959
410901	435964
409118	434226
408506	433774
412523	435888
407150	433400
409591	434570
406848	435463
410618	434776
407432	433551
410707	434687
409096	433937
410492	434950
410853	434804
410249	434330
409700	434754
410556	434954
410746	435470

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 185772.000000
ans =

'Facility Coordinates'

ans =

408179	433952
408206	434028
408381	434917
410684	435564

408505	434233
409009	434454
407911	433922
408179	433952
408962	433786
408872	433690
410707	434687
408777	434870
410481	434658
409426	434622
409583	433734
408872	433690
408578	434478
408651	434460
411123	435729
407911	433922
409591	434570
410651	434905
408522	433432
407432	433551
410389	434885
410492	434950
412511	436693
411149	435575
409401	433812
410735	435556
409384	433134
411269	435392
410556	434848
408432	433440
408962	433786
410721	435245
406576	434678
406567	434733
406514	433813
410492	434950
411768	435535
410389	434885
411342	435526
408570	434746
410556	434848
410901	435964
409122	434124
410604	435208
406848	435463
412581	436944

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185828.000000

ans =

'Facility Coordinates'

ans =

408432	433440
409441	433314
407544	433937
408570	434746
407788	433274
408474	433992
406854	435551
411864	435573
407625	433791
410481	434658
408505	434233
408474	433992
407933	433628
408570	434746
410556	434954
411217	435493
412581	436944
408777	434870
408872	433690
410492	434950
412568	436561
408260	433162
411269	435392
406542	434972
410853	434804
411149	435575
410684	435564
410637	435315
411342	435526
410684	435340
409045	434202
408206	434028
409242	434616
410901	435964
408338	433394
409479	434592
410737	434792
408808	434639
408381	434917
409104	434347
410389	434885
410556	434954
409374	433236
410492	434950
408203	433446
409118	434226
407544	433937
410607	435053

410805	435484
408808	434639

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 185796.000000
ans =

'Facility Coordinates'

ans =

410545	435076
408570	434746
406848	435463
410707	434687
410618	434776
410622	435569
411971	435612
408272	434454
408712	433528
406542	434972
409347	434043
407041	433312
412685	436830
408808	434639
411846	435977
410556	434954
409275	434314
408962	433786
410545	435076
407670	433678
412017	435620
410389	434885
409479	434592
409033	434769
409242	434616
410593	435427
410684	435564
410607	435053
408816	434275
407351	433708
408535	433862
407670	433678
409288	433872
408487	433708
409122	434124
408900	434293
408746	434417
408245	434407
407713	433877

409131	434030
409107	434290
408600	434315
410901	435964
407911	433922
411707	436337
410389	434885
411474	435516
410780	434673
410684	435340
411589	435949

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 185794.000000
ans =

'Facility Coordinates'

ans =

408474	433992
409770	434593
407873	433397
408508	434788
409681	433912
408869	434012
408897	434650
410894	434903
408808	434639
410684	435340
410660	434732
408272	434454
408235	434622
408746	434417
410901	435964
410556	434954
410545	435076
408150	433880
407543	433689
409033	434769
410737	434792
410545	435076
408366	433145
408900	434293
409384	433134
410481	434658
408456	433355
406854	435551
409037	434325
410771	435700

409832	434522
410389	434885
407839	433681
410684	435340
408578	434478
406542	434972
408809	433751
411217	435493
408489	434590
411864	435573
410618	434776
408487	433708
412357	436537
409354	433967
410389	434885
410780	434673
411299	435581
410492	434950
409366	433893
411217	435493

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 185645.000000

ans =

'Facility Coordinates'

ans =

411051	435572
407933	433628
410389	434885
409384	433134
411768	435535
406514	433813
408206	434028
410771	435700
409837	434359
410545	435076
408506	433774
410249	434330
408900	434293
406567	434733
410556	434954
410492	434950
409923	434767
410556	434848
410556	434954
408428	434379
410492	434950

408618	434062
411929	436289
409479	434592
408816	434275
410805	435484
409917	434411
410901	435964
409591	434570
407351	433708
408456	433355
410737	434792
409242	434616
409148	434442
408138	433801
406567	434733
409096	433937
410249	434330
409354	433967
408474	433992
410556	434954
409033	434769
410014	434305
407200	433724
408215	434274
410481	434658
408487	433708
408600	434315
408992	434574
412401	435898

Average Fitness: 185785.200000 +
Max Fitness: 185838.000000
Standard Deviation: 51.565104
Average Time: 587.340232
counters =

3186662	43906	0	9666
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Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 254898.000000
ans =

'Facility Coordinates'

ans =

411149	435575
412086	436729
408094	433305

408872	433690
408310	433632
411500	435977
409275	434314
410234	436518
409662	434465
408900	434293
410244	435175
410298	435298
411057	435110
410230	434688
408816	434275
410417	436035
409490	434182
408570	434746
410042	434928
411144	435014
408992	434574
410888	435542
406719	433674
410109	434397
410213	436728
407615	434816
407041	433312
409662	434465
411176	434965
407084	434156
410006	436804
408932	434976
406848	435463
410958	434862
407493	434671
410394	435496
409242	434616
410088	434282
409479	434592
408514	436845
407011	434136
410244	435175
410320	436562
408977	434240
411051	435572
412374	435958
407544	433937
410213	436728
411034	435304
411768	435535

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 254902.000000

ans =

'Facility Coordinates'

ans =

410244	435175
410834	435710
409271	433151
410837	436079
410307	434939
406876	434600
410488	436025
410920	435029
409681	433912
407713	433877
410763	435977
408778	434739
411613	436244
407608	433396
410180	436398
406782	433480
409411	434362
410939	434936
408381	434917
409681	433912
409490	434182
411057	435110
411034	435304
410230	434688
409591	434082
409096	433937
409467	434047
407625	434703
410244	436276
410204	436314
411090	435533
407490	434776
410234	436518
407391	433476
410072	436904
410371	435374
410394	435496
411002	435664
412488	435944
406782	433480
409434	434132
410244	436276
408410	433567
408731	434657
408651	434460
412374	435958
408514	436845

409214	433933
409583	433734
411459	435554

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 254862.000000

ans =

'Facility Coordinates'

ans =

410113	436329
409700	434754
410180	436398
410417	436035
410224	436222
409107	434290
410763	435977
411459	435554
409434	434132
406846	433440
409406	433531
410888	435542
410888	435542
409271	433151
407767	434214
410180	436398
407666	434347
408377	433205
410090	434450
410348	436049
410234	436518
409479	434592
410958	434862
411874	436309
408840	435022
412374	435958
410847	435782
407587	434751
406666	435023
410006	436607
409104	434347
411474	435516
408962	433786
408597	436868
410888	435542
410359	435086
410113	436329
407101	434011

408210	434740
410885	435668
411069	434818
406782	433480
409591	434570
410429	435043
409837	434359
408618	434062
409942	434312
408150	433880
410204	436314
406848	435463

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 254890.000000

ans =

'Facility Coordinates'

ans =

408644	436892
411644	435991
409038	435235
410430	435369
407192	433963
409275	434314
411846	435977
410234	436518
409823	434877
408215	434274
409588	433265
412629	436167
410307	434939
408703	434274
410435	436784
411715	435683
408840	435022
406848	435463
409738	434678
411034	435304
410109	434397
408977	434240
408897	434547
409596	433463
407390	434777
410169	434467
410197	435045
409262	434873
411272	435509

409770	434593
409923	434767
410179	435225
410920	435029
411326	435084
408094	433305
407788	433274
407084	434156
408906	434723
410394	435496
410099	436799
410570	436117
410482	436373
408869	434012
409738	434678
410920	435029
407178	434623
410958	434862
409267	434380
408310	433632
409411	434362

Radius: 750, Facilities opened: 50

Epochs: 105

Fitness: 254938.000000

ans =

'Facility Coordinates'

ans =

409230	434159
409700	434754
409583	433734
410012	434462
408522	433432
410079	435087
412511	436693
408816	434275
410347	435267
412091	436313
409591	434222
408178	433148
407617	434203
411002	435664
408717	433801
410324	436701
410224	436222
408392	434637
409441	433314
409479	434592

410301	435384
410298	435298
411459	435554
411090	435533
411069	434818
410244	436276
408597	436868
407192	433963
408662	434157
411973	435761
409287	434206
408165	433621
410439	436137
410294	435141
410079	435087
410204	436314
410003	436738
409401	433812
407178	434623
406950	433229
408432	433440
410416	435631
406876	434600
410180	436398
408535	433862
410885	435668
410547	436346
406444	433832
410888	435542
411090	435533

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 254911.000000
ans =

'Facility Coordinates'

ans =

410320	436562
410479	435620
409591	434222
407026	433216
407713	433877
408381	434917
409662	434465
410224	436222
410071	434703
408608	433603
407275	433938

411459	435554
411176	435474
409770	434593
410958	434862
410244	436276
409033	434769
412374	435958
408272	434454
409662	434465
406848	435463
409591	434570
410946	435666
410140	436494
408514	436845
407960	433292
409267	434380
411123	435729
408366	433145
410140	436494
408778	434739
410847	435782
408679	433693
410014	434305
407378	434689
408608	433603
406848	434993
408508	434788
409479	434592
409267	434380
411613	436244
410006	436804
409148	434442
410888	435542
410547	436346
411037	434936
410920	435029
409662	434465
410224	436222
412523	435888

Radius: 750, Facilities opened: 50

Epochs: 106

Fitness: 254883.000000

ans =

'Facility Coordinates'

ans =

410088	434282
408210	434740

409411	434362
409770	434593
408428	434498
410324	436701
410234	436518
409242	434616
410090	434450
408474	433992
409038	435235
411057	435110
409230	434159
411148	435075
410289	435663
409971	435014
409591	434570
410099	436799
411269	435392
412701	436518
407319	434153
408600	434315
408231	434104
410197	435045
409732	434890
411690	435995
410228	435388
411002	435664
409738	434678
407709	434771
409271	433151
407617	433224
410529	436244
410394	435919
407390	434777
411062	435695
409591	434570
409287	434206
410212	436795
406848	435463
409539	434954
408644	436892
411327	434980
410394	435496
409939	435089
408122	434634
410014	434305
409738	434678
411825	435555
408260	433162

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 254877.000000

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

406848	434993
410079	435087
409441	433314
408872	433690
411037	434936
410709	435710
410920	435029
410888	435542
411500	435977
410298	435298
406791	434621
408535	433862
409923	434767
410120	436627
409662	434465
410347	435267
407670	433678
408809	433751
410320	436562
411653	434342
409411	434362
411474	435516
408900	434293
409770	434593
407671	433294
409267	434380
408897	434650
412017	435620
411768	435535
411217	435493
409738	434678
411034	435304
408428	434379
408731	434657
410430	435369
410430	435251
410115	434226
411057	435110
408809	433751
409917	434411
409287	434206
408508	434788
408591	433542
408346	433756
410570	436117
409372	434355

410646	436100
410888	435542
408840	435022
411707	436337

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 254889.000000
ans =

'Facility Coordinates'

ans =

407246	434266
410071	434703
410307	434939
408777	434870
409567	433883
411825	435555
410347	435267
407671	433294
409892	434941
410301	435384
410394	435496
412357	436537
410681	436312
409064	434594
409090	434982
411034	435304
409372	434355
410888	435542
410498	435901
411644	435991
409962	434875
411326	435084
408597	436868
409923	434767
410213	436728
410213	436728
408310	433632
408428	434379
411326	435084
406444	433832
409452	434831
409917	434411
411062	435695
408897	434547
407788	433274
409892	434941
409369	433716

409073	434471
409700	434754
408703	434274
409347	434043
410234	436518
407617	433224
409971	435014
407713	433877
409547	434042
409662	434465
407275	433938
406542	434972
408932	434976

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 254918.000000
ans =

'Facility Coordinates'

ans =

409131	434030
411148	435075
410783	434971
409591	434082
410394	435919
411057	435110
407873	434382
408717	433801
410373	435785
408597	436868
407026	433216
411176	435474
410014	434305
410529	436244
408840	435022
411715	435683
410395	436240
410826	434878
407617	434203
409596	433463
409832	434522
410395	436240
408746	434417
407351	433708
408820	433623
406666	435023
410429	435043
408531	434581

410230	434688
410964	434773
409513	433369
410885	435668
410830	435132
409942	434312
410816	435249
408392	434637
410888	435542
412129	436581
410140	436494
407178	434623
410888	435542
408591	433542
410324	436701
410140	436494
411589	435949
410120	436627
412458	436009
410213	436728
408470	434125
408536	433245

Average Fitness: 254896.800000 +
Max Fitness: 254938.000000
Standard Deviation: 20.682360
Average Time: 642.932647
counters =

3217912	42302	19	9153
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Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 298276.000000
ans =

'Facility Coordinates'

ans =

409275	435982
409033	434769
408506	433774
408410	433567
410946	435666
410894	434903
409596	433463
410437	435739
406854	435551
412142	433645

411176	435474
410359	435086
407782	433454
412550	433670
412201	433331
407888	434792
408808	434639
412458	436009
410014	434305
407170	434329
410468	435817
411867	434209
407617	434203
408535	433862
406977	433349
409668	433316
410885	435668
411864	435573
409073	434471
407649	434014
406933	434564
408662	434157
410958	434862
409240	435695
408410	433567
407319	434153
408897	434650
410037	434213
411057	435110
410479	435620
412084	433491
410964	434773
409214	433933
407026	433216
412434	436410
410622	435569
409832	434522
410675	435867
410559	435512
411680	434067

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298344.000000

ans =

'Facility Coordinates'

ans =

410430	435251
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411644	435991
408777	434870
410593	435427
410964	434773
408121	433547
409267	434380
410088	434282
408381	434917
408717	433801
409441	433314
409123	434596
408778	434739
412129	436581
409681	433912
409634	433883
410894	434903
409513	433369
409478	435707
409208	436263
411250	435070
407319	434153
407698	434420
409487	433830
410920	435029
408932	434976
410853	434804
406702	434774
409832	434522
410826	434878
407351	433708
407413	433750
412084	433491
411459	435554
411589	435949
407703	434268
411589	435949
409354	433967
407002	435313
410429	435043
409620	435615
408455	433224
412201	433331
412142	433645
412007	433476
410939	434936
408679	433693
407547	434366
411474	435516
410593	435427

Radius: 750, Facilities opened: 50
Epochs: 101

Fitness: 298306.000000

ans =

'Facility Coordinates'

ans =

408310	433632
410307	434939
409107	434290
409987	434568
409447	433178
409178	436078
410041	435866
411690	435995
411561	435330
410920	435029
407005	434344
411176	434965
409789	434303
411299	435581
412217	433512
407493	434671
410047	434778
412278	433533
409517	434818
409230	434159
408820	433623
408150	433880
407332	434352
407117	433070
410430	435369
409428	433991
409131	434030
411144	435014
412368	433353
407101	434011
412177	433702
411921	435748
410961	435942
409837	434359
409064	434594
410888	435542
409452	434831
410123	434968
412167	436520
409208	436263
408816	434275
411715	435683
410920	435029
408717	433801
406854	435551

410430	435369
407615	434816
410430	435369
406987	434514
407275	433938

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298429.000000

ans =

'Facility Coordinates'

ans =

409354	433967
411807	436483
412368	433353
407977	434067
409541	436090
409547	434042
408808	434639
407977	434067
411974	433898
408536	433245
408578	434478
410816	435249
410169	434467
407332	434352
408574	433948
410816	435249
406854	435551
409796	434120
408428	434498
411034	435304
412273	433724
410684	435340
409796	434120
408305	433698
409467	434047
410830	435132
411342	435526
411090	435533
409624	435752
409832	434522
407378	434689
411934	433660
409467	434047
410939	434936
410511	435237
412195	433835

411474	435516
408777	434870
409347	434043
408327	434678
412284	436333
410307	434939
411459	435554
406840	434204
411780	435701
407873	434382
407170	434329
408470	434125
411921	435748
409096	433937

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298288.000000

ans =

'Facility Coordinates'

ans =

411269	435392
408777	434870
409596	433463
408536	433245
412492	436363
410429	435043
409762	433858
410888	435542
411144	435014
410230	434688
409123	434596
407625	434703
410637	435315
407839	433681
407544	433937
406901	433359
409242	434616
411037	434936
409837	434359
406906	434328
409426	434622
408122	434634
411846	435977
408591	433542
406876	434600
408519	434341
409565	435307

409681	433912
407398	434564
411768	435535
410834	435710
412324	433474
411034	435304
410169	434467
409160	436346
412142	433645
411728	434237
409061	433610
408679	433693
409277	435420
412324	433474
409487	433830
406901	433359
406854	435551
408600	434315
412437	433525
411644	435991
411983	434152
411589	435949
409567	433883

Radius: 750, Facilities opened: 50
Epochs: 101
Fitness: 298318.000000
ans =

'Facility Coordinates'

ans =

410430	435251
408231	434104
407694	433514
409401	433812
412007	433476
408138	433801
409147	436256
409131	434030
406854	435551
411876	433973
406567	434733
408231	434104
409275	434314
410894	434903
409668	433316
408428	434498
409738	434678
407870	434680

410622	435569
409547	434042
410230	434688
409122	434124
410888	435542
409118	434226
412482	436753
408600	434315
411816	434086
410894	434903
410113	434847
410230	434688
408470	434125
406950	433229
411176	434965
411148	435075
408897	434650
411057	435110
412116	433724
407952	434326
410684	435340
408778	434739
407553	433546
411864	435573
409426	434622
411037	434936
412354	436001
409289	436065
411825	435555
411867	434209
406846	433440
412139	433524

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298466.000000

ans =

'Facility Coordinates'

ans =

408381	434917
408872	433690
407390	434777
410812	435963
411929	436289
411057	435110
410325	435510
407002	435313
410502	435734

410307	434939
407300	433763
409351	435734
410325	435510
409289	436065
409442	435810
410325	435510
412400	433787
411825	435555
407084	434156
411149	435575
409479	434592
410298	435298
410834	435710
410468	435817
412673	433549
408094	433305
410169	435417
411176	434965
409547	434042
410359	435086
408508	434788
407870	434680
410394	435496
407977	434067
412177	433702
410437	435739
410958	434862
411173	434890
409104	434347
407005	434344
410169	435417
409271	433151
412574	433533
412624	436427
409718	433959
409596	433463
408392	434637
407005	434344
409107	434290
407096	434374

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298234.000000

ans =

'Facility Coordinates'

ans =

409378	435563
410559	435512
407931	433784
411500	435977
411974	433898
411034	435304
409715	434552
411299	435581
409583	433734
409107	434290
410826	434878
411825	435555
408618	434062
407767	434214
409770	434593
409567	433883
412400	433787
407483	433605
412023	433809
410826	434878
406640	435230
408808	434639
410939	434936
411123	435729
410622	435569
407543	433689
409596	433463
409378	435563
410837	436079
407703	434483
407543	433689
410816	435249
409789	434303
410545	435076
407608	433396
409009	434454
408600	434315
412273	433724
407977	434067
407977	434067
410816	435249
411269	435392
410883	436197
409366	433893
412023	433809
406854	435551
411613	436244
411474	435516
408906	434723
410153	434343

Radius: 750, Facilities opened: 50

```
Epochs: 101  
Fitness: 298290.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

411057	435110
408992	434574
411974	433898
410230	434688
410090	434450
411886	433816
410090	434450
412140	436120
408508	434788
408231	434104
409242	434616
407670	433678
410888	435542
410014	434305
409369	433716
407873	434382
407422	433137
406576	434678
408616	433704
411149	435575
409354	433967
410429	435043
412152	433293
409668	433316
411250	435070
406854	435551
411846	435977
409366	433893
410958	434862
406450	433586
407413	433750
409467	434047
408574	433948
409214	433933
409812	435857
409796	434120
407587	434751
409208	436263
411326	435084
408305	433698
409411	434362
412300	433668
408712	433528
412142	433645

410622	435569
411768	435535
410604	435208
407709	434771
411690	435995
409148	434442

Radius: 750, Facilities opened: 50

Epochs: 101

Fitness: 298326.000000

ans =

'Facility Coordinates'

ans =

406450	433586
409378	435563
411589	435949
409452	434831
406854	435551
411123	435729
409570	435942
409372	434355
409662	434465
409770	434593
407332	434352
411034	435304
410593	435427
408816	434275
409009	434454
411613	436244
410888	435542
407788	433274
408487	433708
408456	433355
411037	434936
409681	433912
407617	434203
407649	434014
412344	433627
411768	435535
409192	434265
410637	435315
412550	433670
409823	434877
409487	433830
407670	433678
409411	434362
408259	433586
408506	433774

406702	434774
410067	435592
409567	433883
412300	433668
407547	434366
411051	435572
410964	434773
409131	434030
412273	433724
409700	434754
409347	434043
412202	436456
409567	433883
411561	435330
411459	435554

Average Fitness: 298327.700000 +

Max Fitness: 298466.000000

Standard Deviation: 66.837190

Average Time: 687.730812

counters =

3188830	40792	3	10571
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