

```
>> UpdatedPMCLAP
```

```
>> UpdatedPMCLAP
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000
```

```
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000
```

```
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

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ans =
```

```
    2.7000    4.1000
```

```
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000  
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 3700.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000  
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 3700.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000  
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 3700.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.7000    4.1000  
    2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 3700.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.7000    4.1000
2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.7000    4.1000
2.7000    4.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 3700.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.7000    4.1000
2.2000    4.0000
```

```
Average Fitness: 3700.000000 +
```

```
Max Fitness: 3700.000000
```

```
Standard Deviation: 0.000000
```

```
Average Time: 2.493236
```

```
counters =
```

```
302545    57718    0    13
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 5090.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
    2.6000    2.5000  
    2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 5090.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.6000    2.5000  
    2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 5090.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.2000    4.0000  
    2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 5090.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.6000    2.5000  
    2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 5090.000000  
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.2000    4.0000  
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 5090.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.2000    4.0000  
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 5090.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.6000    2.5000  
2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 5090.000000
```

```
ans =
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```
'Facility Coordinates'
```

```
ans =
```

```
2.6000    2.5000  
2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
Fitness: 5090.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.6000    2.5000
2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5090.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.2000    4.0000
2.6000    2.5000
```

```
Average Fitness: 5090.000000 +
Max Fitness: 5090.000000
Standard Deviation: 0.000000
Average Time: 2.802878
counters =
```

```
358425    1815    0    50
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5210.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.6000    2.5000
2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5210.000000
```

```
ans =
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```
    'Facility Coordinates'
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```
ans =
```

```
    2.2000    4.0000  
    2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
```

```
Epochs: 101
```

```
Fitness: 5210.000000
```

```
ans =
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```
    'Facility Coordinates'
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ans =
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```
    2.2000    4.0000  
    2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
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```
Epochs: 101
```

```
Fitness: 5210.000000
```

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ans =
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    2.6000    2.5000  
    2.2000    4.0000
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Radius: 1.500000e+00, Facilities opened: 2
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Epochs: 101
```

```
Fitness: 5210.000000
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    2.9000    2.1000  
    2.2000    4.0000
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Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
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ans =
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ans =
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    2.2000    4.0000
    2.6000    2.5000
```

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Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5210.000000
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ans =
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```
    2.9000    2.1000
    2.2000    4.0000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5210.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.2000    4.0000
    2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 5210.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.2000    4.0000
```



2.9000 2.1000

Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 5210.000000  
ans =

'Facility Coordinates'

ans =

2.6000 2.5000  
2.2000 4.0000

Average Fitness: 5210.000000 +  
Max Fitness: 5210.000000  
Standard Deviation: 0.000000  
Average Time: 3.013913  
counters =

360295 0 0 5

Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =

'Facility Coordinates'

ans =

2.9000 2.7000  
1.9000 3.8000

Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =

'Facility Coordinates'

ans =

2.6000 2.5000  
1.9000 3.8000

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.6000    2.5000  
    1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.9000    2.7000  
    1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.1000    2.8000  
    1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2  
Epochs: 101  
Fitness: 4520.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
2.6000    2.5000
1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 4520.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.7000
1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 4520.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.7000
1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 4520.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.7000
1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 2
Epochs: 101
Fitness: 4520.000000
ans =
```

```
'Facility Coordinates'
```

ans =

2.9000	2.7000
1.9000	3.8000

Average Fitness: 4520.000000 +

Max Fitness: 4520.000000

Standard Deviation: 0.000000

Average Time: 2.775740

counters =

344530	15684	0	56
--------	-------	---	----

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.9000	2.1000
2.4000	4.8000
2.4000	3.3000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.9000	2.7000
1.9000	2.1000
2.4000	4.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

```
ans =
```

```
2.4000    4.8000
2.6000    2.5000
2.4000    3.3000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.7000
2.4000    4.8000
1.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
1.9000    2.1000
2.4000    3.3000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.1000    2.8000
1.9000    2.1000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.1000    2.8000
    2.6000    2.5000
    2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.4000    4.8000
    2.1000    2.8000
    2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.4000    4.8000
    2.6000    2.5000
    2.1000    2.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

ans =

2.9000	2.7000
1.9000	2.1000
2.4000	4.8000

Average Fitness: 5390.000000 +

Max Fitness: 5390.000000

Standard Deviation: 0.000000

Average Time: 4.466128

counters =

411748	8408	0	84
--------	------	---	----

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.5000	6.0000
2.2000	4.0000
2.9000	2.1000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.9000	2.1000
1.9000	3.8000
3.0000	5.1000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

```
ans =
```

```
2.9000    2.1000
2.1000    2.8000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.1000
2.4000    4.8000
1.7000    3.3000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.5000    1.4000
2.1000    2.8000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.1000
2.2000    4.0000
2.4000    4.8000
```



```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
1.9000    3.8000
2.4000    4.8000
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
1.9000    2.1000
2.4000    4.8000
3.0000    3.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
1.9000    3.8000
2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
'Facility Coordinates'
```

ans =

1.9000	2.1000
2.9000	2.7000
2.4000	4.8000

Average Fitness: 5390.000000 +

Max Fitness: 5390.000000

Standard Deviation: 0.000000

Average Time: 4.377515

counters =

419980	195	28	91
--------	-----	----	----

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5240.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.7000	3.6000
2.1000	2.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5240.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.7000	3.6000
2.1000	2.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 119

Fitness: 5260.000000

ans =

'Facility Coordinates'

```
ans =
```

```
2.9000    2.9000
2.4000    4.8000
2.1000    2.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5240.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.7000
2.1000    2.8000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 129
```

```
Fitness: 5260.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    3.3000
2.1000    2.8000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 150
```

```
Fitness: 5260.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.1000    2.8000
2.9000    2.7000
2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 135
Fitness: 5260.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
2.6000    2.5000
2.4000    3.3000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 120
Fitness: 5260.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
2.7000    3.6000
2.1000    2.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 149
Fitness: 5260.000000
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
2.4000    3.3000
2.1000    2.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5240.000000
ans =
```

```
'Facility Coordinates'
```

ans =

2.9000	2.7000
2.4000	4.8000
2.1000	2.8000

Average Fitness: 5252.000000 +

Max Fitness: 5260.000000

Standard Deviation: 9.797959

Average Time: 4.235590

counters =

497822	4676	0	86
--------	------	---	----

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.7000	3.3000
3.0000	5.1000
2.9000	2.1000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.6000	2.5000
1.9000	3.8000
2.4000	4.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

```
ans =
```

```
2.4000    4.8000
2.4000    3.3000
2.9000    1.2000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
2.1000    2.8000
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.5000    6.0000
1.9000    3.8000
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.2000    4.0000
2.5000    6.0000
2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3  
Epochs: 101  
Fitness: 5390.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.5000    1.4000  
    2.4000    4.8000  
    2.1000    2.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3  
Epochs: 101  
Fitness: 5390.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.4000    4.8000  
    1.7000    3.3000  
    2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3  
Epochs: 101  
Fitness: 5390.000000  
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.5000    6.0000  
    2.9000    2.1000  
    1.7000    3.3000
```

```
Radius: 1.500000e+00, Facilities opened: 3  
Epochs: 101  
Fitness: 5390.000000  
ans =
```

```
    'Facility Coordinates'
```

ans =

2.6000	2.5000
1.9000	3.8000
2.5000	6.0000

Average Fitness: 5390.000000 +

Max Fitness: 5390.000000

Standard Deviation: 0.000000

Average Time: 4.080548

counters =

420127	0	0	149
--------	---	---	-----

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.7000	3.3000
2.9000	2.1000
2.4000	4.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.1000	2.8000
2.6000	2.5000
2.4000	4.8000

Radius: 1.500000e+00, Facilities opened: 3

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'



```
ans =
```

```
2.4000    4.8000
3.0000    3.5000
1.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.9000    2.1000
2.4000    4.8000
1.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
1.7000    3.3000
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
```

```
Epochs: 101
```

```
Fitness: 5390.000000
```

```
ans =
```

```
'Facility Coordinates'
```

```
ans =
```

```
2.4000    4.8000
2.1000    2.8000
2.6000    2.5000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    1.9000    2.1000
    2.9000    3.2000
    2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    3.2000    2.9000
    1.9000    2.1000
    2.4000    4.8000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    1.9000    3.8000
    2.4000    4.8000
    2.9000    2.1000
```

```
Radius: 1.500000e+00, Facilities opened: 3
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

ans =

1.7000	3.3000
2.6000	2.5000
2.4000	4.8000

Average Fitness: 5390.000000 +

Max Fitness: 5390.000000

Standard Deviation: 0.000000

Average Time: 4.126999

counters =

418956	1286	5	45
--------	------	---	----

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.9000	2.7000
2.2000	4.0000
1.9000	2.1000

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.9000	3.8000
2.5000	6.0000
3.3000	2.8000
2.6000	2.5000

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.9000	3.8000
2.9000	3.2000
3.0000	5.1000
2.6000	2.5000

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.9000	2.7000
1.9000	2.1000
3.4000	3.0000

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.9000	2.1000
2.9000	2.1000
1.7000	4.2000
3.0000	5.1000

Radius: 1.500000e+00, Facilities opened: 4

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.6000	2.5000
3.0000	5.1000
2.7000	4.1000
1.7000	4.2000

Radius: 1.500000e+00, Facilities opened: 4  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

2.7000	4.1000
1.9000	2.1000
2.2000	4.0000
3.0000	5.1000

Radius: 1.500000e+00, Facilities opened: 4  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

2.9000	2.1000
3.0000	5.1000
2.2000	4.0000
2.4000	3.3000

Radius: 1.500000e+00, Facilities opened: 4  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

1.9000	2.1000
2.4000	4.8000
3.2000	2.9000
3.0000	3.5000

```
Radius: 1.500000e+00, Facilities opened: 4
Epochs: 101
Fitness: 5390.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    1.9000    2.1000
    2.7000    4.1000
    2.5000    6.0000
    1.7000    4.2000
```

```
Average Fitness: 5390.000000 +
Max Fitness: 5390.000000
Standard Deviation: 0.000000
Average Time: 5.201127
counters =
```

```
    476825    3270    12    175
```

```
Radius: 1.500000e+00, Facilities opened: 5
Epochs: 101
Fitness: 5330.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

```
    2.4000    3.3000
    2.1000    2.8000
    1.9000    4.7000
    1.9000    2.1000
    1.9000    3.8000
```

```
Radius: 1.500000e+00, Facilities opened: 5
Epochs: 101
Fitness: 5330.000000
ans =
```

```
    'Facility Coordinates'
```

```
ans =
```

2.4000	4.8000
2.9000	2.1000
2.9000	2.7000
1.9000	2.1000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.1000	2.8000
3.0000	3.5000
1.9000	4.7000
2.2000	4.0000
1.9000	2.1000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.4000	3.3000
2.7000	4.1000
1.9000	4.7000
2.6000	2.5000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.9000	3.2000
2.4000	4.8000

2.1000	2.8000
1.9000	2.1000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

3.0000	3.5000
2.1000	2.8000
2.6000	2.5000
2.4000	4.8000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 108  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.4000	3.3000
2.7000	4.1000
2.6000	2.5000
2.4000	4.8000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.9000	2.9000
2.1000	2.8000
2.4000	4.8000
1.9000	2.1000



2.2000 4.0000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 101  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

2.9000 2.7000  
2.4000 4.8000  
2.9000 2.7000  
1.9000 2.1000  
1.9000 3.8000

Radius: 1.500000e+00, Facilities opened: 5  
Epochs: 121  
Fitness: 5330.000000  
ans =

'Facility Coordinates'

ans =

3.2000 2.9000  
2.4000 4.8000  
2.1000 2.8000  
1.9000 2.1000  
1.9000 3.8000

Average Fitness: 5330.000000 +  
Max Fitness: 5330.000000  
Standard Deviation: 0.000000  
Average Time: 6.568166  
counters =

533641 21154 3 40

Radius: 1.500000e+00, Facilities opened: 6  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

2.5000	1.4000
3.3000	2.8000
2.4000	4.8000
2.2000	4.0000
2.9000	3.2000
1.0000	3.2000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

1.7000	4.2000
3.0000	5.1000
2.9000	2.1000
2.4000	3.3000
1.9000	2.1000
2.9000	2.9000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5410.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.4000	3.3000
6.0000	2.6000
2.1000	2.8000
1.9000	2.1000
2.2000	4.0000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.5000	1.4000
2.9000	2.9000
2.4000	4.8000
3.4000	3.0000
2.5000	6.0000
1.9000	2.1000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.9000	1.2000
2.1000	2.8000
2.7000	3.6000
2.7000	3.6000
3.0000	3.5000
2.4000	4.8000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5410.000000

ans =

'Facility Coordinates'

ans =

2.4000	4.8000
2.9000	3.2000
2.9000	2.9000
1.9000	2.1000
1.9000	3.8000
6.0000	2.6000

Radius: 1.500000e+00, Facilities opened: 6

Epochs: 101

Fitness: 5390.000000

ans =

'Facility Coordinates'

ans =

2.9000	2.1000
3.2000	3.1000
1.7000	3.3000
2.4000	4.8000
2.4000	4.8000
3.2000	3.1000

Radius: 1.500000e+00, Facilities opened: 6  
Epochs: 101  
Fitness: 5410.000000  
ans =

'Facility Coordinates'

ans =

6.0000	2.6000
3.2000	2.9000
2.4000	4.8000
2.1000	2.8000
1.9000	2.1000
1.9000	3.8000

Radius: 1.500000e+00, Facilities opened: 6  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

2.2000	4.0000
3.0000	5.1000
3.0000	3.5000
2.9000	1.2000
3.0000	3.5000
2.1000	2.8000

Radius: 1.500000e+00, Facilities opened: 6  
Epochs: 101  
Fitness: 5390.000000  
ans =

'Facility Coordinates'

ans =

2.2000	4.0000
3.0000	5.1000
2.6000	2.5000
2.5000	1.4000
2.2000	4.0000
2.9000	2.7000

Average Fitness: 5396.000000 +

Max Fitness: 5410.000000

Standard Deviation: 9.165151

Average Time: 7.499074

counters =

582853	14715	44	2586
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