```
In[ ]:= customerData = loadCustomerData[path];
       demand = customerData["Demand"][[2]];
       Print["Demand"];
       Grid[Join[{customerData["Header"]}, {demand}], Frame → All]
       results = Table[VRP[customerData["Distance"], demand, 100, 2.3, 0.8, 0.9, 30], 20];
       bestRun = Table[displayResult[results[[i]]], {i, 1, Length[results]}];
       Print["The best result for all runs"];
       printData[Sort[bestRun, #1[[4]] < #2[[4]] &][[1]]]
```
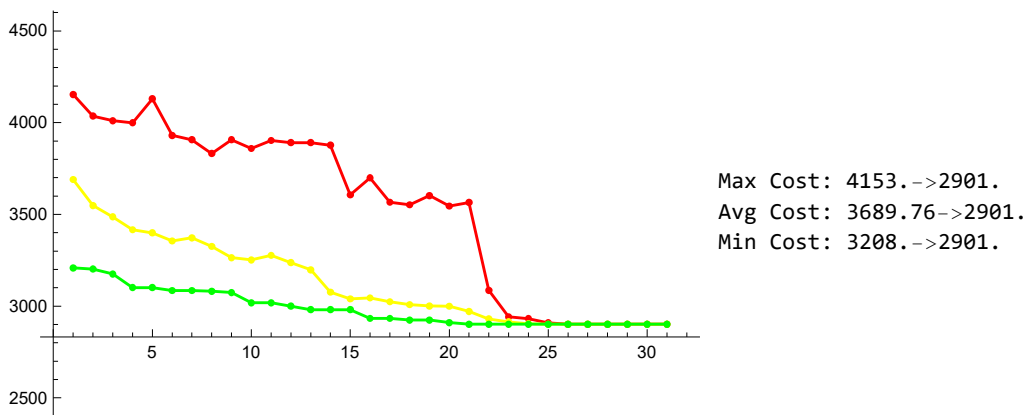
Demand

Out[ ]=

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
0.2	0.8	0.3	0.7	0.5	1.	1.	1.	2.	0.1	0.1	0.2	0.2	0.3

Transport Sequence: 0->9->5->2->1->11->14->3->8->6->13->12->10->7->4->0

Use 4 Vehicles -> 1, 6, 3, 4

Minimum cost of each vehicle: 542, 743, 724, 892

Total cost :2901.

Max Cost: 4153.-->2901.
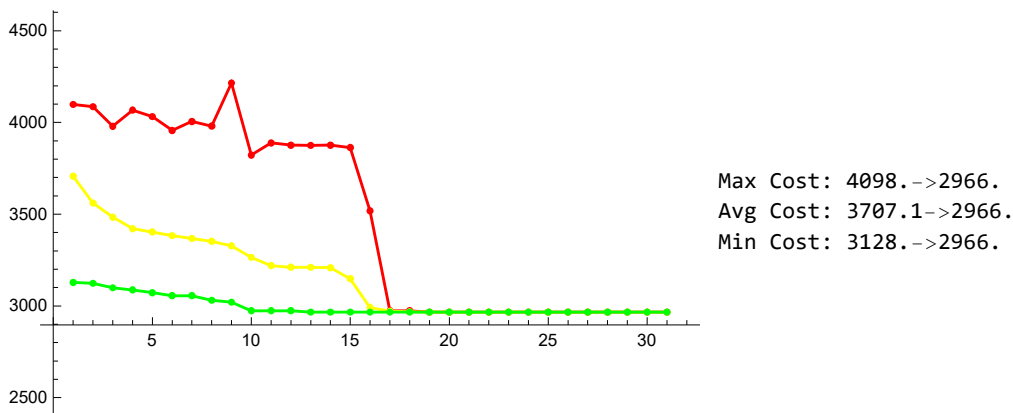Avg Cost: 3689.76-->2901.
Min Cost: 3208.-->2901.

Transport Sequence: 0->8->3->14->11->1->9->2->6->13->12->5->10->7->4->0

Use 4 Vehicles -> 5, 1, 4, 4

Minimum cost of each vehicle: 624, 542, 875, 925

Total cost :2966.

Max Cost: 4098.-->2966.
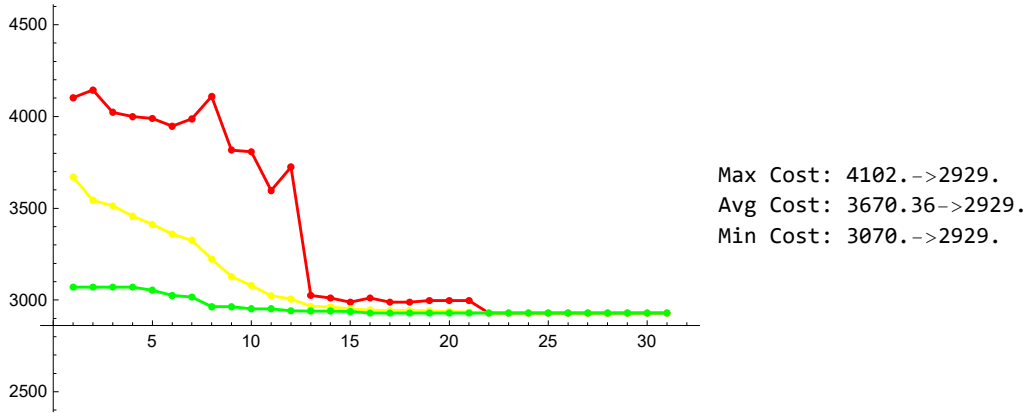Avg Cost: 3707.1-->2966.
Min Cost: 3128.-->2966.

Transport Sequence: 0->5->2->6->13->14->3->8->11->1->9->12->4->7->10->0

Use 4 Vehicles -> 3, 6, 2, 3

Minimum cost of each vehicle: 663, 806, 628, 832

Total cost :2929.

Max Cost: 4102.->2929.
Avg Cost: 3670.36->2929.
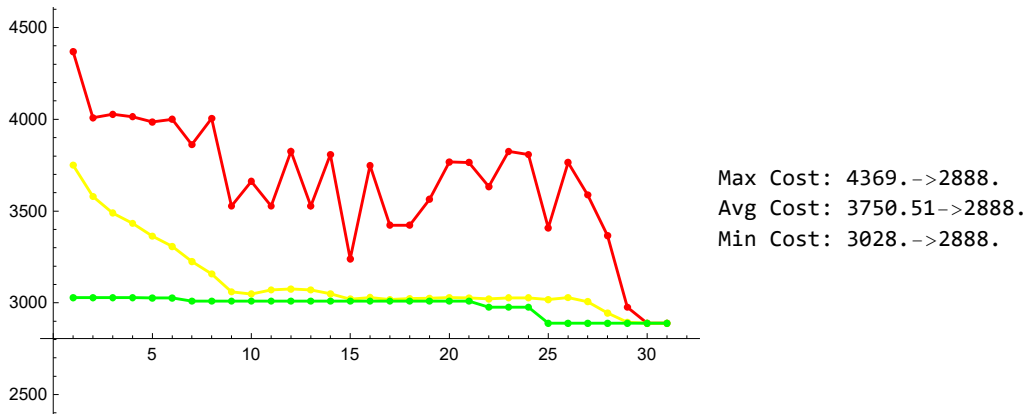Min Cost: 3070.->2929.

Transport Sequence: 0->4->7->10->12->5->8->14->3->11->2->6->13->1->9->0

Use 4 Vehicles -> 4, 5, 4, 1

Minimum cost of each vehicle: 892, 649, 805, 542

Total cost :2888.

Max Cost: 4369.->2888.
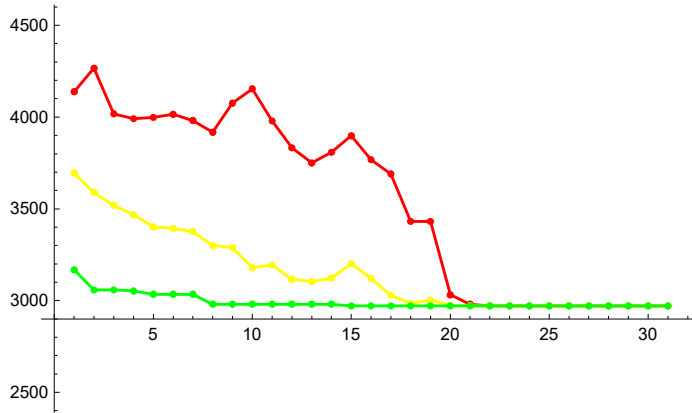Avg Cost: 3750.51->2888.
Min Cost: 3028.->2888.

Transport Sequence: 0->7->4->1->12->10->9->2->6->13->5->8->11->14->3->0

Use 4 Vehicles -> 5, 1, 3, 5

Minimum cost of each vehicle: 1033, 542, 755, 641

Total cost :2971.

Max Cost: 4138.->2971.
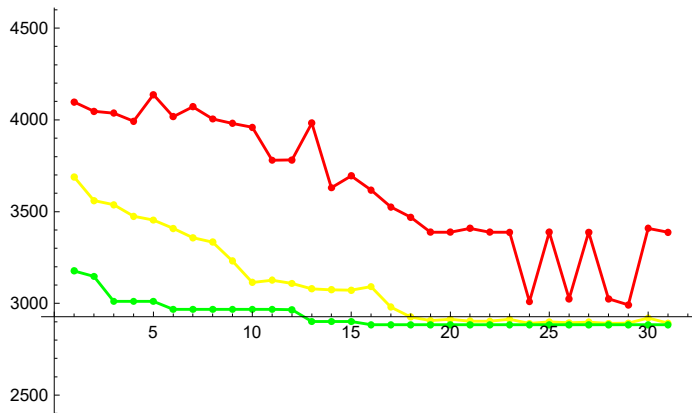Avg Cost: 3695.02->2971.
Min Cost: 3167.->2971.

Transport Sequence: 0->5->8->11->3->14->2->1->6->13->9->4->7->10->12->0

Use 4 Vehicles -> 5, 4, 1, 4

Minimum cost of each vehicle: 649, 800, 542, 892

Total cost :2883.

Max Cost: 4097.->3387.
Avg Cost: 3688.76->2891.84
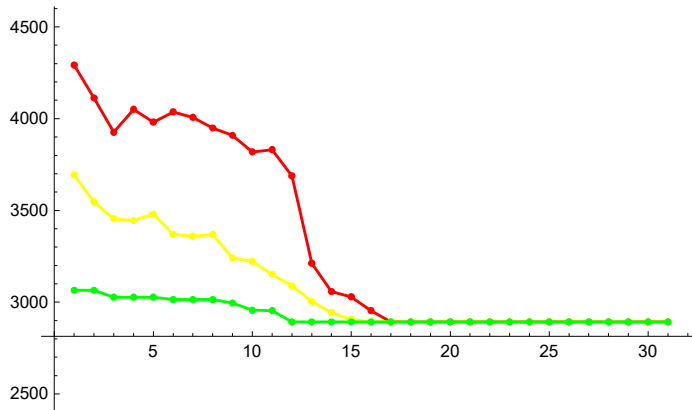Min Cost: 3177.->2883.

Transport Sequence: 0->1->11->14->3->8->13->4->7->6->5->2->9->12->10->0

Use 4 Vehicles -> 6, 2, 3, 3

Minimum cost of each vehicle: 790, 663, 651, 788

Total cost :2892.

Max Cost: 4292.->2892.
Avg Cost: 3693.5->2892.
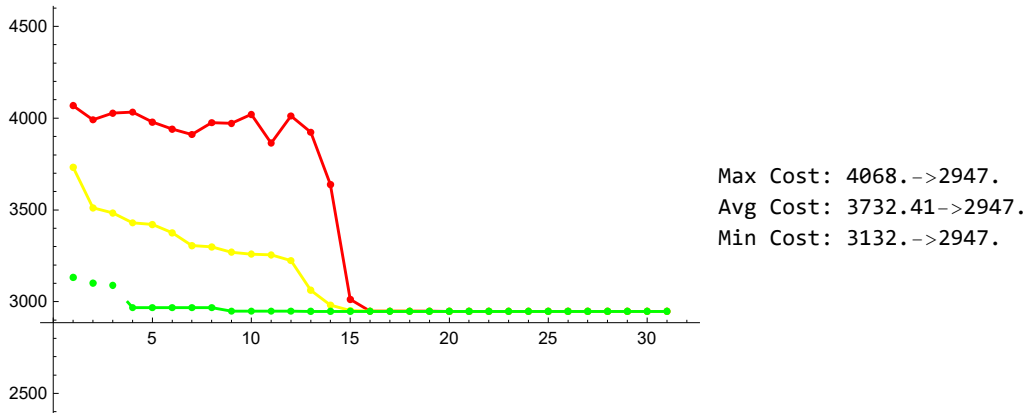Min Cost: 3065.->2892.

Transport Sequence: 0->11->14->3->8->5->6->1->2->12->10->9->13->7->4->0

Use 4 Vehicles -> 5, 5, 2, 2

Minimum cost of each vehicle: 641, 925, 718, 663

Total cost :2947.

Max Cost: 4068.->2947.
Avg Cost: 3732.41->2947.
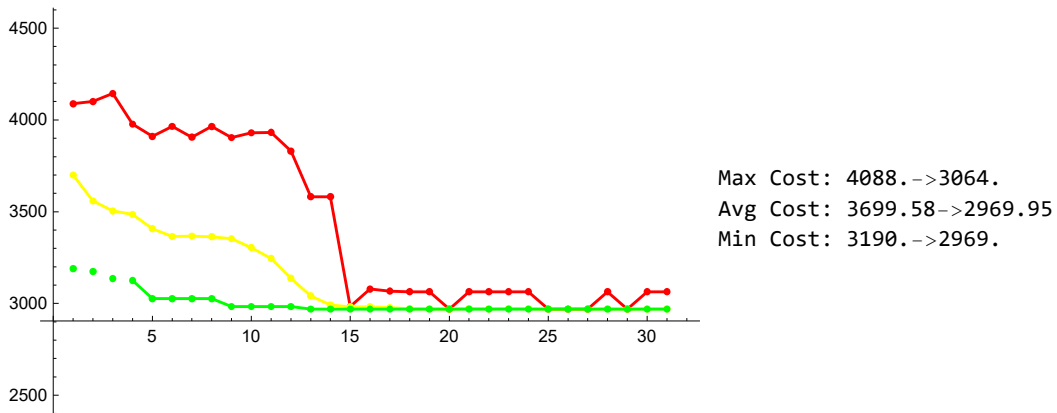Min Cost: 3132.->2947.

Transport Sequence: 0->9->7->4->10->12->8->3->1->2->5->6->13->14->11->0

Use 4 Vehicles -> 1, 4, 4, 5

Minimum cost of each vehicle: 542, 915, 710, 802

Total cost :2969.

Max Cost: 4088.->3064.
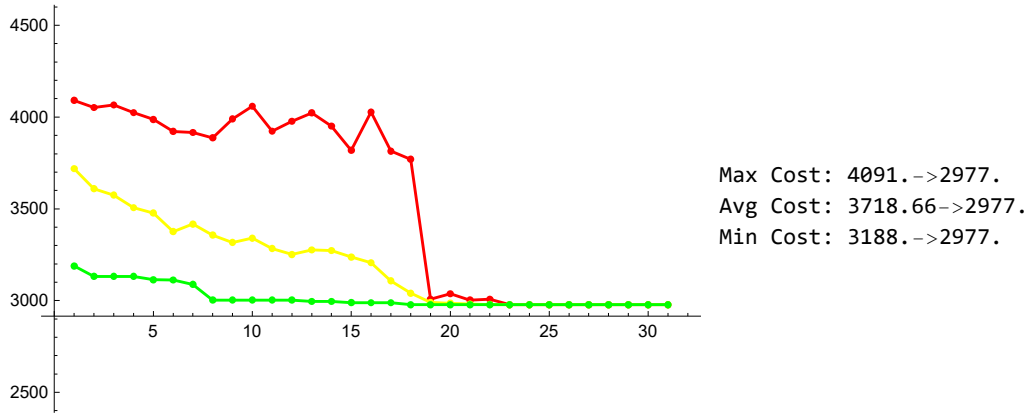Avg Cost: 3699.58->2969.95
Min Cost: 3190.->2969.

Transport Sequence: 0->5->6->4->13->12->10->7->2->14->11->3->8->1->9->0

Use 4 Vehicles -> 3, 5, 5, 1

Minimum cost of each vehicle: 797, 1017, 621, 542

Total cost :2977.

Max Cost: 4091.->2977.
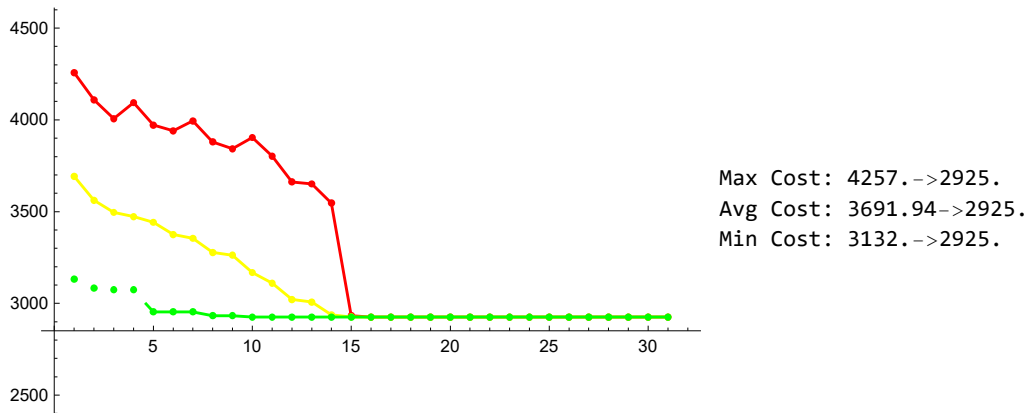Avg Cost: 3718.66->2977.
Min Cost: 3188.->2977.

Transport Sequence: 0->10->4->7->6->2->5->1->8->11->14->3->13->9->12->0

Use 4 Vehicles -> 3, 3, 6, 2

Minimum cost of each vehicle: 855, 663, 779, 628

Total cost :2925.

Max Cost: 4257.->2925.
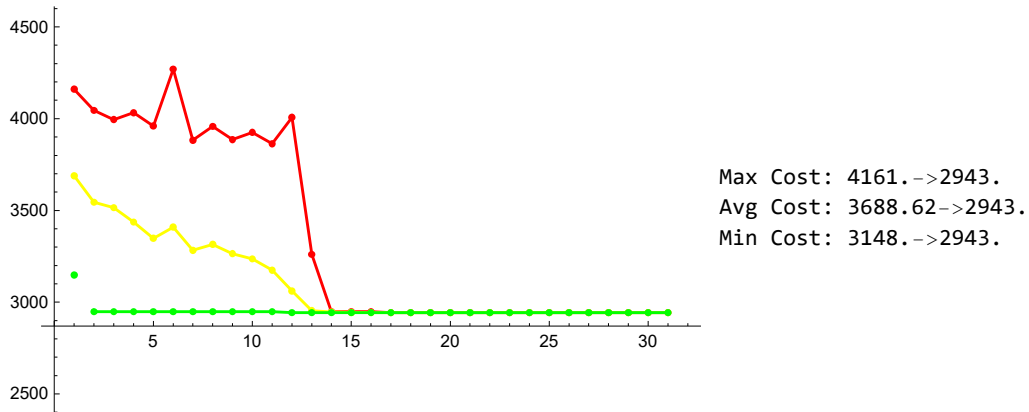Avg Cost: 3691.94->2925.
Min Cost: 3132.->2925.

Transport Sequence: 0->13->3->14->11->5->2->9->8->6->1->12->10->7->4->0

Use 4 Vehicles -> 6, 1, 3, 4

Minimum cost of each vehicle: 867, 542, 642, 892

Total cost :2943.

Max Cost: 4161.->2943.
Avg Cost: 3688.62->2943.
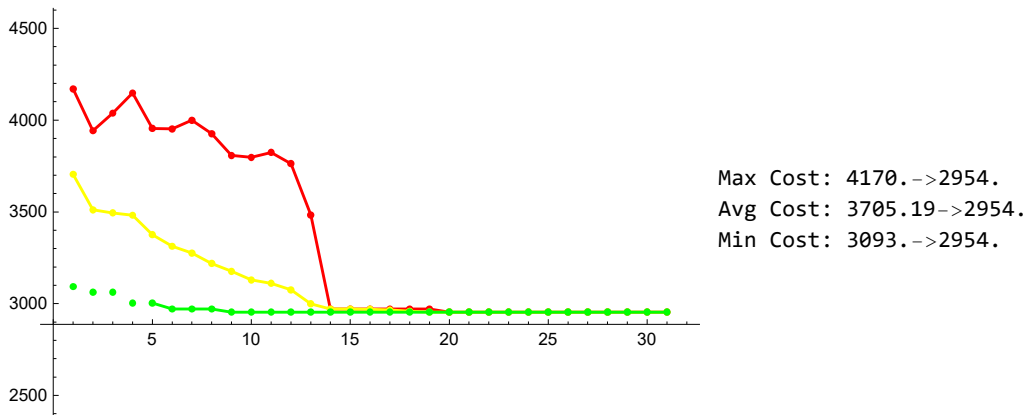Min Cost: 3148.->2943.

Transport Sequence: 0->9->12->10->5->4->7->3->8->1->2->6->13->14->11->0

Use 4 Vehicles -> 3, 3, 4, 4

Minimum cost of each vehicle: 788, 736, 687, 743

Total cost :2954.

Max Cost: 4170.->2954.
Avg Cost: 3705.19->2954.
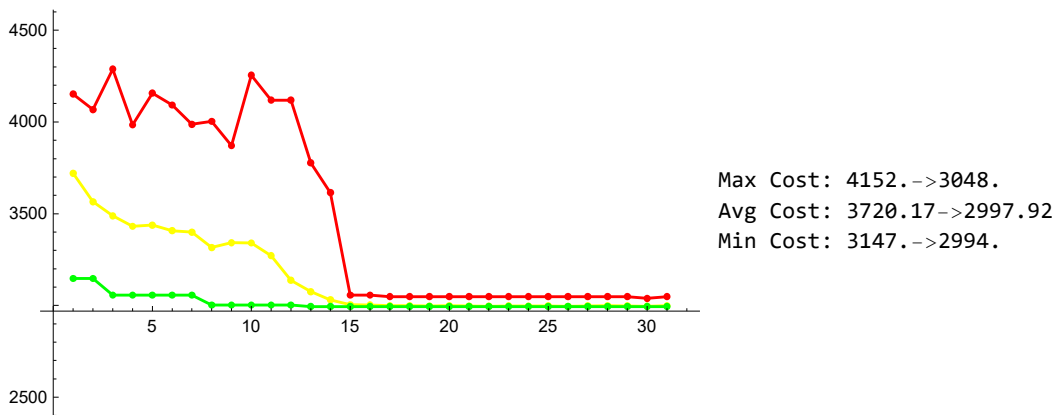Min Cost: 3093.->2954.

Transport Sequence: 0->3->14->11->12->4->5->1->2->7->10->9->8->13->6->0

Use 4 Vehicles -> 7, 3, 1, 3

Minimum cost of each vehicle: 967, 767, 542, 718

Total cost :2994.

Max Cost: 4152.->3048.
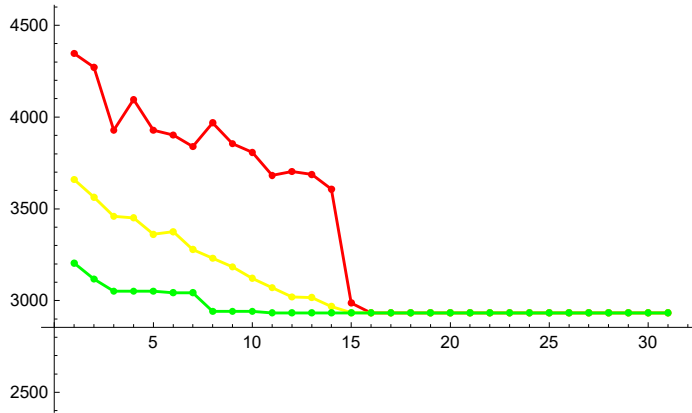Avg Cost: 3720.17->2997.92
Min Cost: 3147.->2994.

Transport Sequence: 0->12->10->7->4->9->5->6->13->11->14->2->1->8->3->0

Use 4 Vehicles -> 4, 1, 5, 4

Minimum cost of each vehicle: 892, 542, 812, 687

Total cost :2933.

```
Max Cost: 4347.->2933.
Avg Cost: 3659.82->2933.
Min Cost: 3204.->2933.
```
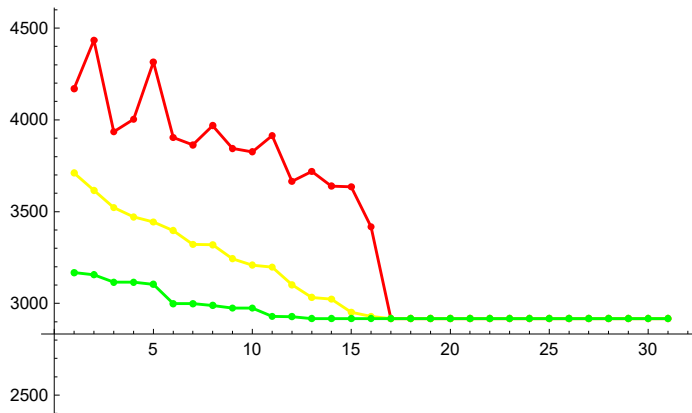
Transport Sequence: 0->10->7->4->12->8->3->11->14->13->1->2->5->6->9->0

Use 4 Vehicles -> 4, 6, 3, 1

Minimum cost of each vehicle: 922, 802, 651, 542

Total cost :2917.


```
Max Cost: 4170.->2917.
Avg Cost: 3710.52->2917.
Min Cost: 3167.->2917.
```
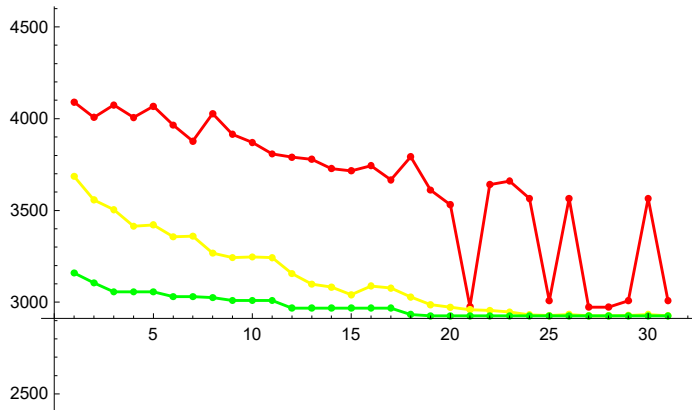
Transport Sequence: 0->12->2->6->13->9->1->8->3->14->11->5->4->7->10->0

Use 4 Vehicles -> 4, 2, 5, 3

Minimum cost of each vehicle: 848, 593, 652, 832

Total cost :2925.


```
Max Cost: 4090.->3008.
Avg Cost: 3685.64->2925.83
Min Cost: 3159.->2925.
```
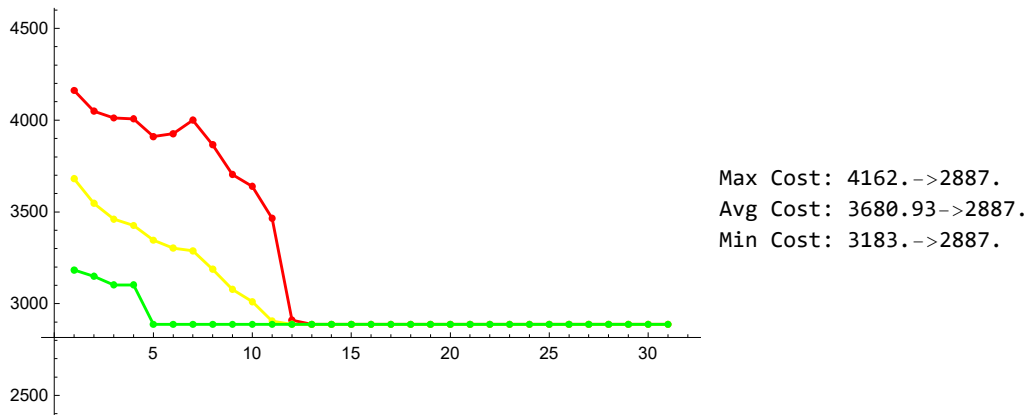
Transport Sequence: 0->9->4->7->10->12->8->14->3->11->1->13->6->5->2->0

Use 4 Vehicles -> 1, 4, 6, 3

Minimum cost of each vehicle: 542, 892, 802, 651

Total cost :2887.

Max Cost: 4162.->2887.
Avg Cost: 3680.93->2887.
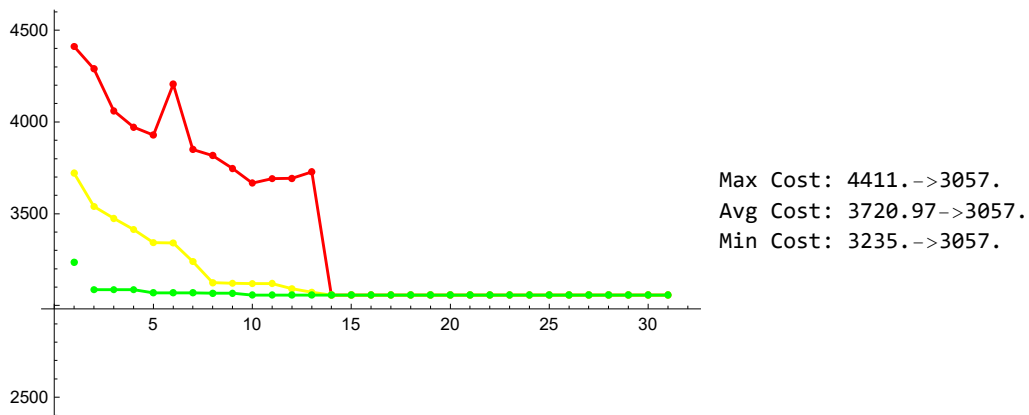Min Cost: 3183.->2887.

Transport Sequence: 0->4->7->8->13->3->11->14->1->10->2->5->6->9->12->0

Use 4 Vehicles -> 2, 7, 3, 2

Minimum cost of each vehicle: 663, 1115, 651, 628

Total cost :3057.

Max Cost: 4411.->3057.
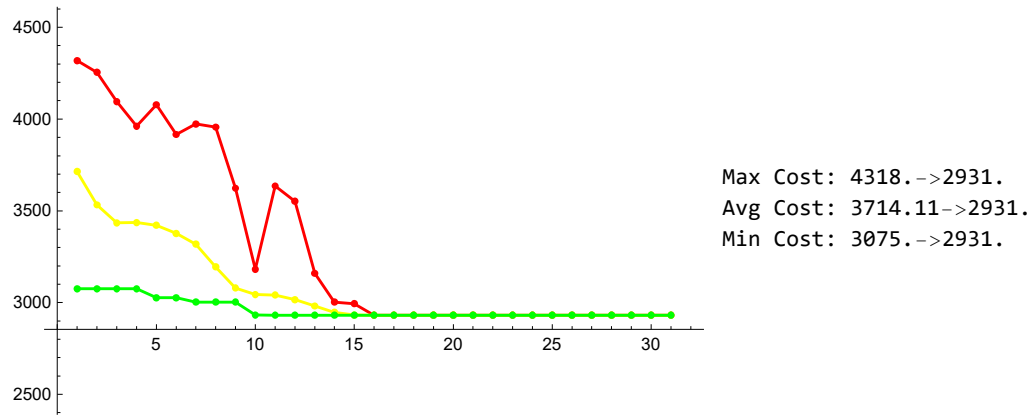Avg Cost: 3720.97->3057.
Min Cost: 3235.->3057.

Transport Sequence: 0->2->5->8->6->13->1->3->14->11->9->12->4->7->10->0

Use 4 Vehicles -> 3, 6, 2, 3

Minimum cost of each vehicle: 656, 815, 628, 832

Total cost :2931.

Max Cost: 4318.–>2931.
Avg Cost: 3714.11–>2931.
Min Cost: 3075.–>2931.

The best result for all runs

Transport Sequence: 0–>5–>8–>11–>3–>14–>2–>1–>6–>13–>9–>4–>7–>10–>12–>0

Use 4 Vehicles –> 5, 4, 1, 4

Minimum cost of each vehicle: 649, 800, 542, 892

Total cost :2883.