Representation	Permutation
Recombination	Order Crossover
Recombination Probability	100%
Mutation Probability	Insert
Mutation Probability	50%
Parent Selection	Best 4 of 9
Survival Selection	Replace Worst
Population Size	9
Number of Offspring	2
Initialization	Random
Termination Condition	10 Generations
Best of Run 1	073456210 from generation 3 with a fitness of 3507
Best of Run 2	023416750 from generation 1 with a fitness of 2294
Best of Run 3	025647130 from generation 8 with a fitness of 3427
Representation	Permutation
Recombination	Order Crossover
Recombination Probability	100%
Mutation	Swap
Mutation Probability	50%
Parent Selection	Best 4 of 9
Survival Selection	Replace Worst
Population Size	9
Number of Offspring	2
Initialization	Random
Termination Condition	10 Generations
Best of Run 1	051624730 from generation 4 with a fitness of 5220
Best of Run 2	023451760 from generation 5 with a fitness of 2978
Best of Run 3	027456130 from generation 4 with a fitness of 2424
Representation	Permutation
Recombination	Order Crossover
Recombination Probability	100%
Mutation	Inversion

Mutation Probability	50%
Parent Selection	Best 4 of 9
Survival Selection	Replace Worst
Population Size	9
Number of Offspring	2
Initialization	Random
Termination Condition	10 Generations
Best of Run 1	023456710 from generation 8 with a fitness of 1627
Best of Run 2	021456730 from generation 6 with a fitness of 1201
Best of Run 3	021657430 from generation 1 with a fitness of 4244
Representation	Permutation
Recombination	Order Crossover
Recombination Probability	100%
Mutation	Scramble
Mutation Probability	50%
Parent Selection	Best 4 of 9
Survival Selection	Replace Worst
Population Size	9
Number of Offspring	2
Initialization	Random
Termination Condition	10 Generations
Best of Run 1	021653740 from generation 1 with a fitness of 3987
Best of Run 2	051476230 from generation 5 with a fitness of 4008
Best of Run 3	025146730 from generation 8 with a fitness of 3167

Overall the majority of programs did well lowering the travel cost over generations, with some performing better than others. Though not by a massive amount, the inversion mutation performed the best reaching the two lowest fitness values, lower fitness being better in this case, with just one that appears to have prematurely converged as it's most fit value was on generation 1. The swap mutation runs consistently reached the lowest possible value in the fewest generations, all below 5. This leads me to believe it may be stagnating since no newer

generations can compete and other mutations show smaller potential fitness. Nothing in particular stood out with scramble or insert mutation runs.