

A1 Question 3:

- a) The brute force function for solving tsp is located at line 30 of a1q3.py (tsp_solver_brute_force). Here are the stats for the brute force solution (documented at the end of q3_logs.pdf):
{'mean': 2.4432349085582965, 'min': 1.397121188859637, 'max': 3.602886452745925, 'std': 0.3513613360988595}.
- b) The random tour generation function is located at line 70 of a1q3.py (tsp_random_solver). Here are the stats for the random solver solution (documented at the end of q3_logs.pdf):
{'mean': 3.602650495783112, 'min': 1.9934395671404106, 'max': 5.661186871758963, 'std': 0.7538414944553328}.
- c) The hill climbing solution is located at line 107 of a1q3.py (tsp_hill_climbing). Here are the stats for the hill climbing solution (documented at the end of q3_logs.pdf):
{'mean': 2.445095693715398, 'min': 1.397121188859637, 'max': 3.6028864527459254, 'std': 0.35127546933988923}
- d) Random solver and hill climbing solution stats:

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===== RANDOM SOLUTIONS STATS =====  
{'mean': 52.07273436599102, 'min': 45.93010131078826, 'max': 58.18984144490707, 'std': 2.5029193564860743}  
===== AI SOLUTIONS STATS =====  
{'mean': 8.308336094610858, 'min': 7.64687815932027, 'max': 9.054974713562645, 'std': 0.2759944804198441}
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