Shihan Ai, g3aishih, 999700649
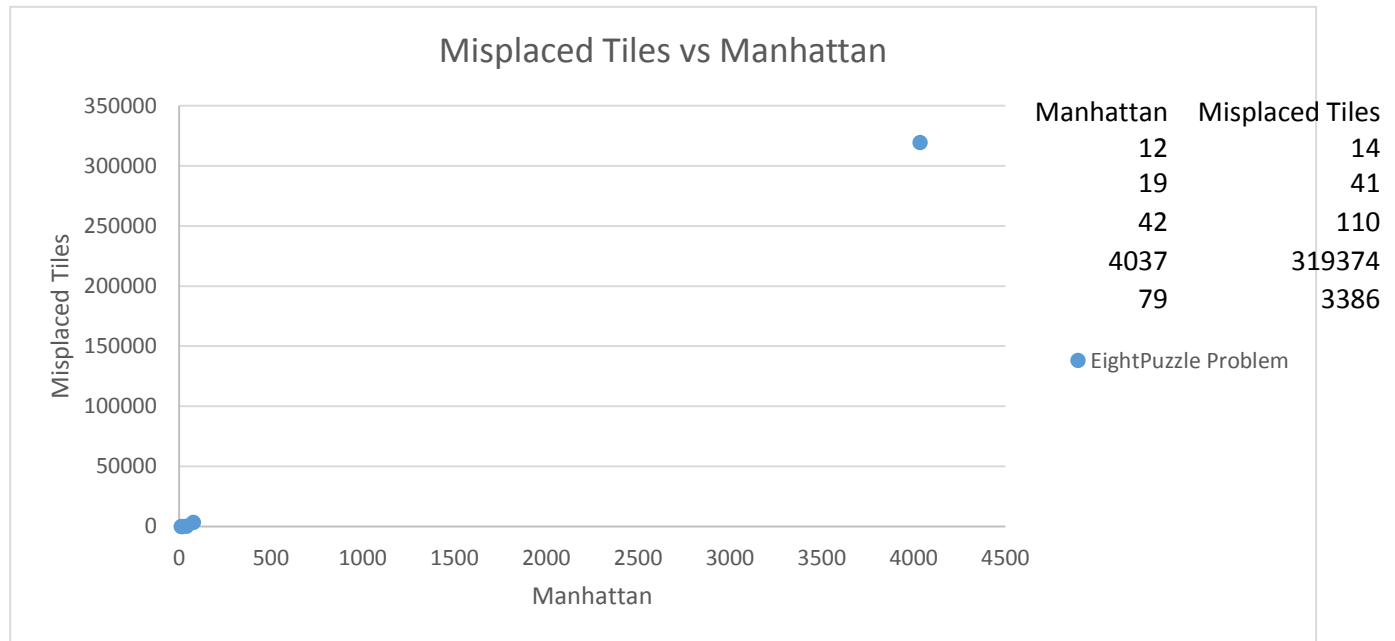
Question 1

a) Manhattan distance performs better
b) As the Manhattan distance method is exploring more nodes, the Misplaced Tiles method has to explore **increasingly** more nodes than the Manhattan distance method

Misplaced Tiles vs Manhattan

Manhattan	Misplaced Tiles
12	14
19	41
42	110
4037	319374
79	3386

● EightPuzzle Problem

Question 2:

a) Both heuristics are admissible
b) No, because map is constant for the scenario and doesn't change for any state
c) No, it can be computed from other parts, it's redundant
d) A) no, you can drop off the current job and pick up the other job after, B) yes, sometimes you can pick up both and carry them at the same time but now we've restricted this ability so we will deliver things later than before (maybe we have to take time to travel back to a certain location from a far location to pick a job up, whereas we could've picked it up before from a closer location thus increasing time)
e) No, what if this job at LocA weights 10000, assuming you are carrying no other jobs, you can only carry out this one job which may not pay a lot. If you don't carry this job, you could possibly pick up N smaller weighing jobs and deliver them all, yielding a higher profit.
f)