

Henry Hough

186071

henryhow@uw.edu

Kush Chopra

2078801

kush22@uw.edu

Assignment 2 Report -- Heuristic Search

CSE 415: Introduction to Artificial Intelligence

Spring, 2021

1. Results with Heuristics for the Eight Puzzle

Puzzle	Heuristic	Solved?	# Soln	Edges	Soln Cost	# Expanded	Max OPEN
A	none (UCS)	Y	7	7	106	80	
A	Hamming	Y	7	7	7	6	
A	Manhattan	Y	7	7.	7	6	
B	none (UCS)	Y	14	14	1490	898	
B	Hamming	Y	12	12	33	25	
B	Manhattan	Y	12	12	94	72	

C	none (UCS)	Y	16	16	4070	2290	
C	Hamming	Y	14	14	189	127	
C	Manhattan	Y	14	14	62	49	
D	none (UCS)	Y	16	16	7982	4700	
D	Hamming	Y	16	16	589	368	
D	Manhattan	Y	16	16	151	102	

Puzzle A: [3,0,1,6,4,2,7,8,5]

Puzzle B: [3,1,2,6,8,7,5,4,0]

Puzzle C: [4,5,0,1,2,8,3,7,6]

Puzzle D: [0,8,2,1,7,4,3,6,5]

2. (Optional) Evaluating Our Custom Heuristics