

Christian Carreras

CSC 548

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### Project #1: 26-Puzzle Results

Goal State		
[1, 2, 3]	[10, 11, 12]	[19, 20, 21]
[4, 5, 6]	[13, 14, 15]	[22, 23, 24]
[7, 8, 9]	[16, 17, 18]	[25, 26, 0]

#### **Test 1:**

Initial State		
[2, 5, 3]	[1, 10, 12]	[19, 20, 21]
[4, 0, 6]	[13, 11, 14]	[22, 23, 15]
[7, 8, 9]	[16, 17, 18]	[25, 26, 24]

Output	
Path	['south', 'east', 'up', 'west', 'north', 'west', 'up', 'north']
Length	8

#### **Test 2:**

Initial State		
[1, 2, 3]	[10, 11, 12]	[19, 20, 21]
[4, 5, 6]	[13, 0, 15]	[22, 23, 24]
[7, 8, 9]	[16, 14, 17]	[25, 26, 18]

Output	
Path	['north', 'west', 'up']
Length	3

#### **Test 3:**

Initial State		
[13, 2, 6]	[0, 11, 3]	[10, 20, 12]
[1, 8, 5]	[16, 14, 15]	[19, 22, 21]
[4, 7, 9]	[17, 18, 26]	[25, 23, 24]

Output	
Path	['down', 'north', 'north', 'west', 'south', 'west', 'south', 'up', 'up', 'north', 'north', 'down', 'east', 'east', 'south', 'south', 'up', 'north', 'west', 'north', 'west']
Length	21

**Test 4:**

Initial State		
[1, 2, 3]	[16, 17, 9]	[19, 20, 21]
[4, 5, 6]	[13, 14, 18]	[22, 23, 15]
[7, 8, 0]	[17, 18, 26]	[25, 26, 24]

Output	
Path	['up', 'south', 'up', 'north']
Length	4

**Test 5:**

Initial State		
[10, 5, 2]	[13, 17, 3]	[19, 11, 12]
[1, 6, 9]	[25, 0, 14]	[23, 20, 21]
[8, 4, 18]	[7, 16, 15]	[22, 26, 24]

Output	
Path	['west', 'north', 'down', 'south', 'east', 'north', 'east', 'up', 'south', 'south', 'down', 'north', 'west', 'up', 'south', 'up', 'north', 'east', 'north', 'down', 'west', 'south', 'down', 'south', 'west', 'up', 'up', 'north', 'north']
Length	29