

Homework 7  
Knights Tour  
CMSC351  
Jee Kang

Input: "Jee Kang"  
Start Location: C8  
Offest: 6

1. Experiment 1

Start Location: C8  
Offest: 6  
**Branching Factors:** 1, 64, 4, 2, 5, 3, 7, 2  
**Estimated nodes:** 1, 64, 256, 512, 2560, 7680, 53760, 107520

2. Experiment 2

Start Location: A4  
Offest: 6  
**Branching Factors:** 1, 64, 4, 5, 7, 4  
**Estimated nodes:** 1, 64, 256, 1280, 8960, 35840

3. Experiment 3

Start Location: E3  
Offest: 6  
**Branching Factors:** 1, 64, 8, 7, 7, 6, 4, 1, 2, 2, 2, 1, 3, 5, 2, 1, 2, 4, 3, 2  
**Estimated nodes:** 1, 64, 512, 3584, 25088, 150528, 602112, 602112, 1204224, 2408448, 4816896, 4816896, 14450688, 72253440, 144506880, 144506880, 289013760, 1156055040, 3468165120, 6936330240

4. Experiment 4

Start Location: E3  
Offest: 6  
**Branching Factors:** 1, 64, 8, 7, 5, 4, 4, 3, 4, 1, 4, 5, 4, 1, 1, 1, 3, 3  
**Estimated nodes:** 1, 64, 512, 3584, 17920, 71680, 286720, 860160, 3440640, 3440640, 13762560, 68812800, 275251200, 275251200, 275251200, 275251200, 825753600, 2477260800

**Aveage Expected Nodes:**

1, 64, 384, 2240, 13632, 66432, 235648, 392448, 1161216, 1462272, 4644864, 18407424, 72425472, 86876160, 104939520, 104939520, 278691840, 908328960, 867041280, 1734082560

Fun Scale: 10 out of 10!