Functional Programming Assignment 1
Theoretical Questions

Brian Mc George
MCGRBRI004

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Question 2.2

The Rubik's cube can be twisted in six directions. For each state six new (non-distinct) states can be generated. n moves can be represented by the following mathematical function:

$$f(n) = 6^n \text{ for all } n \in \mathbb{N}$$

Question 3.2

Figure 1 indicates that there is a correlation between the running time and the memory usage. As n increases, so does the size of the search space grow exponentially. However, in terms of actually memory usage on the operating system we do not see this exponential growth, we instead see a logarithmic increase in memory usage of the process over the run duration.

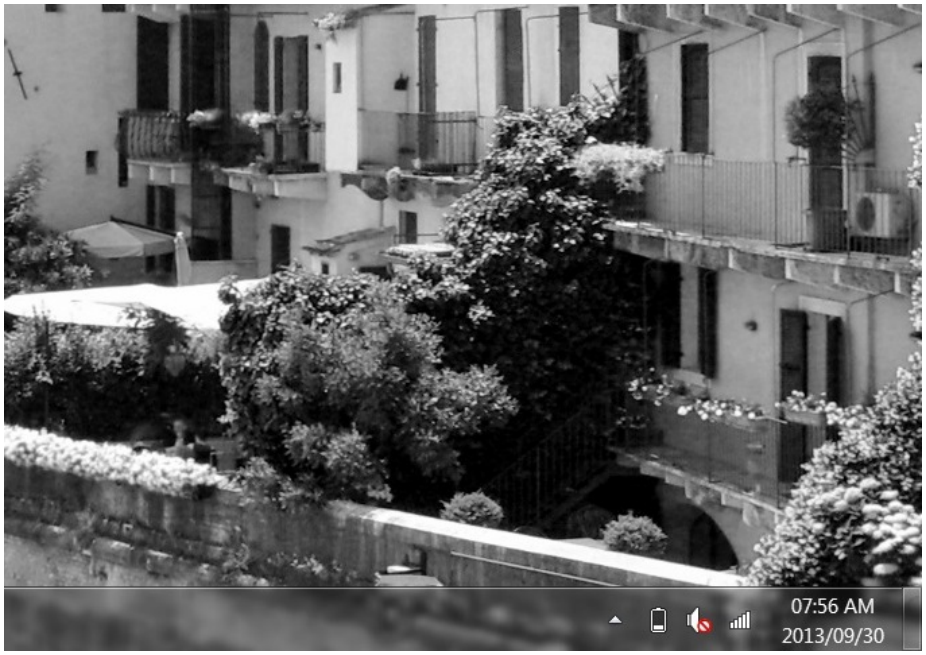

Figure 1: Placeholder

Size of n	Peak Memory Usage	Running Time
1	null	null
2	null	null
3	null	null
4	null	null
5	null	null
6	null	null
7	null	null
8	null	null

Tests were conducted for n up to size 8. The results would indicate ...