CIS 4430 – A4

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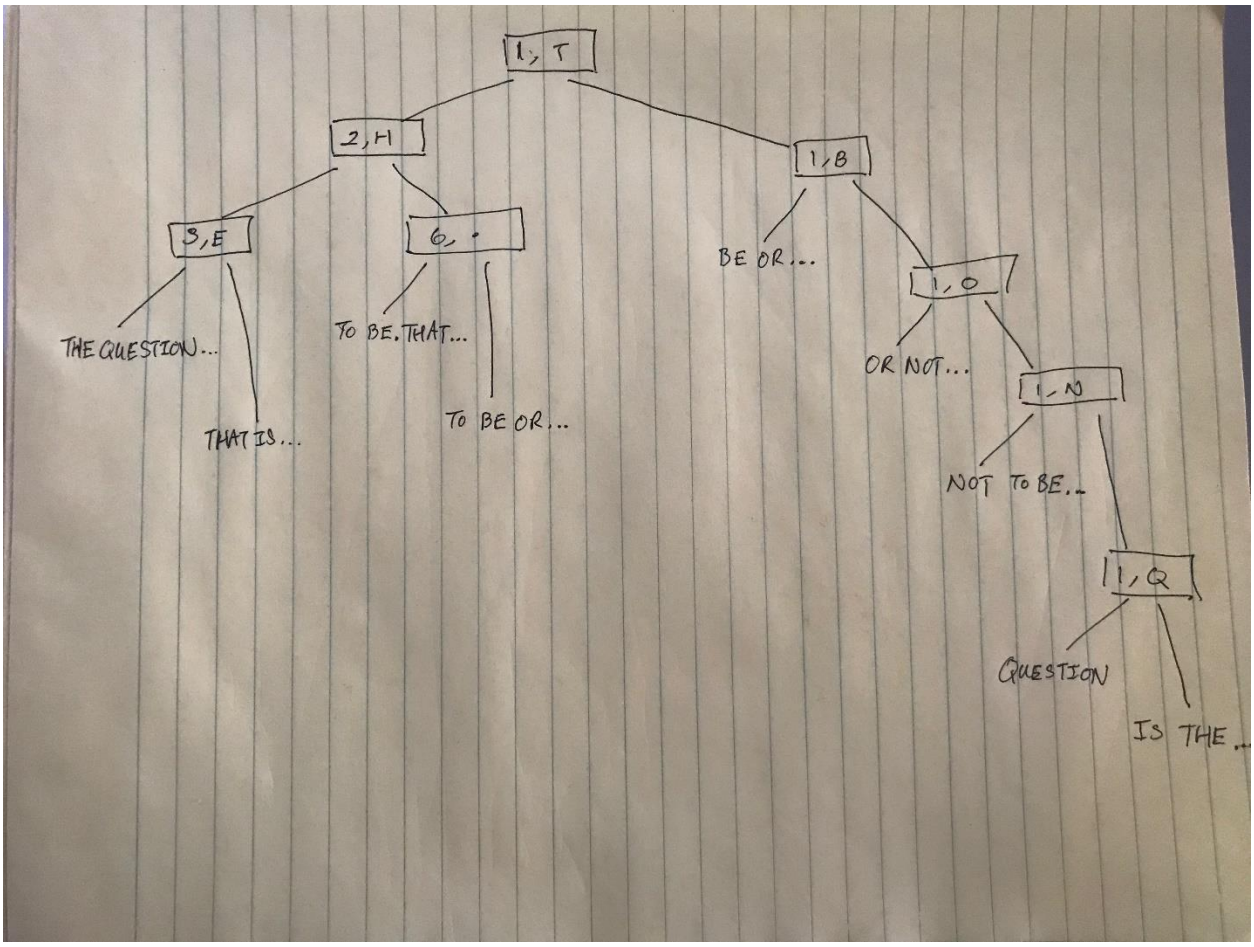
1. A. ceiling (51 / 50) + 51 = 53 disk accesses
   B. ceiling(101 / 10) + 101 = 122 disk accesses
   C. 2 + 11 + 1 = 14 disk accesses
2. 

   B. i) T is in the first character, go left, H is not the second character, so go right. The right subtree encompasses all patterns containing TO BE
   ii) Follow the same directions as step 1, and go the right subtree since there isn't a period in the 6th position.
   iii) Follow the same steps as question ii, but then discover there are no more subtrees to traverse. The pattern does not exist.

   C. Starting at the root of a tree, traverse until all characters of a pattern has been consumed, or you reach a subtree that only has patterns for children. The subtree that you are currently on

will have matched the maximum number of characters to the pattern. Check all children of the subtree to see if the (full) pattern exists.