2. We need to define the comparison operator != for a self defined class like Coord.

3b. For a recursive implementation, we need to pass in the old inheritance path as a string to each function call of listAll. If we do not have the second string parameter, we cannot append the name of the derived class to the string that represent its inheritance path.

4a. O(N^3)

There are three nested for loops, each run at a fixed number of N times. Since everytime the i loop run, j loop runs, and every time j loop runs, k loop runs, the time complexity together is N\*N\*N which is O(N^3).

4b. O(N^3)

The most outer loop (i loop) will run N times. The j loop runs maximum N-1 times since the maximum of i is N-1. The k loop will also run at most N times. Together the time complexity is approximately N\*N\*N which is O(N^3).

5. O(N^2)

Traversing through all the nodes in the smaller map requires N operations. For each key from the smaller map, the function get is called, which carries out N operations. Together, the time complexity is N\*N which is O(N^2).