2

Because the compiler can’t compare two complex number using the default compare method in the argument “for (p = m\_head->m\_next, pos = 0; p != m\_head && value > p->m\_value; p = p->m\_next, pos++)” So the compiler don’t know where to insert Complex(40,10). It is will cause a compiler error.

3

b) Because I am using a recursive method to list all the value. If I am using only one parameter, I can’t keep track of the path. Because, in the recursive function we can’t access to parent path. We need a string path parameter to store all the path value.

4

1. There are 3 nested for loop. Each for loop is used N times. N\*N\*N = N^3. So the answer is O(N^3).
2. The difference in part b is that in the second loop, loop limit is now I, not N. But the largest possible value of i is still N. So the answer is still O(N^3).

5

1. There is a for loop that is used N times. Inside the for loop the get function and insert function are both use n times. So the answer is O(N^2).
2. The function still has a for loop that traverse everything so it costs N times. The insert Before function only add a value so it is only 1 step. Overall the answer is O(N).