2. Set<Coord>::insert causes a compilation error because the Coord class is not a generic data type and does not have an equals or comparison operator written.

3b. This recursive function required a parameter as a pointer to access the subdomains and also a parameter to store the path. For this reason, we could not do this with one path.

4a. O(N^3), since there are 3 nested for loops, each going up to N, and the steps within the loops are O(1).

4b. O(N^3), since the first loop goes up to N, and the second loop’s maximum possible iteration times also N, and the third loop goes up to N.

5a. O(N^2). There is a loop at the bottom of the unite function that runs N times, each time calling the insert function, which calls the findFirstAtLeast function, which can run N times in the worst possible case. This means that for each iteration of the loop in the unite function, there will be up to N steps executed.

5b. O(NlogN). The sorting algorithm is of time complexity O(NlogN). To copy all values from p1 and p2 into v is only O(N). The while loop runs a maximum of N times so that is also O(N), and the for loop in the end also runs a maximum of O(N). Therefore O(NlogN) is the largest term.

5c. O(N). The while loop will run N times since there are N elements in each of the sets, and once the while loop is done, the for loop will run a maximum of N times.