Practice Questions
Searching, sorting and Alignment

1. Find the number of iterations required to search for 15 in the following array using a linear search.

13	2	45	34	5	27

2. Find the number of iterations required to search for 45 in the following array using a binary search.

2	13	15	45	47	63

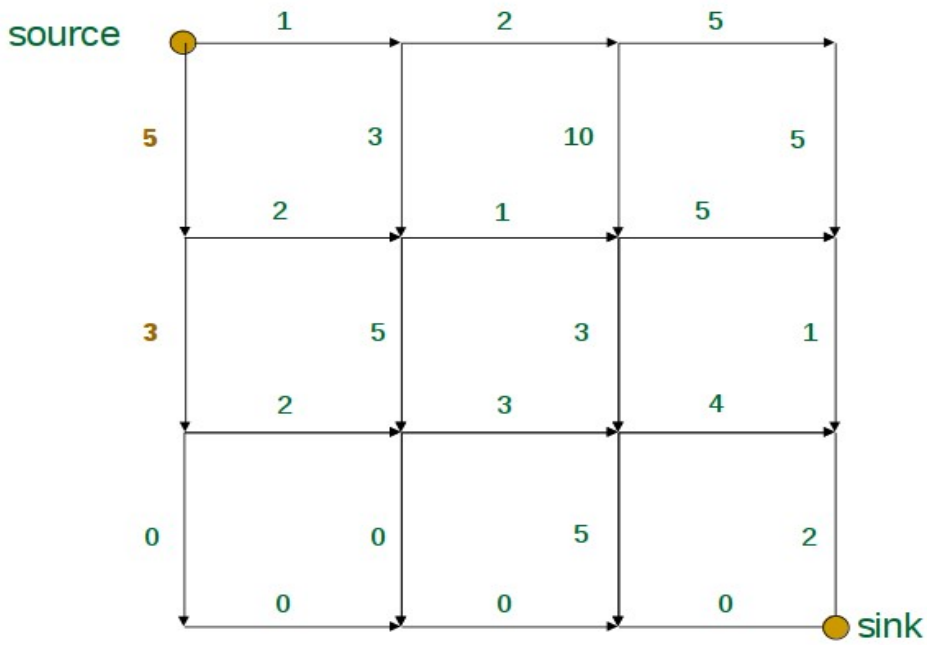
3. Perform a bubble sort for the following

13	2	45	34	5	27

4. Perform a selection sort for the following

13	2	45	34	5	27

5. Given the Manhattan tourist Grid. Compute the greedy and optimal path.



6. Compute the final score for the global alignment of these sequences: GACTAC and ACGC with a score of +1 for a match, 0 for a mismatch, and -1 for a gap penalty.

7. Compute the final score for the local alignment of these sequences: GATTGA and AGGC with a score of +4 for a match, -1 for a mismatch, and -2 for a gap penalty.