**Algorithm time complexity analysis**

Q1:

1. O(1)

Q2:

1. O(1)

Q3:

1. Without set O(n^2). With set O(n)
2. O(n)
3. O(n)
4. O(n)
5. O(n^2)

Q4:

1. O(1)

Q5:

1. O(1)
2. O(n)
3. O(n)

Q6:

1. O(n)

Q7:

1. O(nlogn)

Q8:

1. O(n)