1. A. O(n2)

B. O(n)

C. O(n)

D.O(n2)

2. A. (0,1,2,3,3,4,5,7)

B. (0,1,2,3,4,5,6)

3.

4.O(n)- Linear time complexity

5.

6.

|  |  |  |
| --- | --- | --- |
| Features | List | ArayyList |
| Implementation | Interface | Class |
| Resizeble | Yes | Yes |
| Initialization | Cannot be directly initialized | Can be directly initialized |
| Imports | java.util.List | java.util.ArrayList |
| Usage | Suitable when flexibility is required | Suitable when random access is required |
|  |  |  |
|  |  |  |

7.