

PRIYANSHI

E – 26

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WEEK – 2

Q1.

```
#include <iostream>

#include <vector>

#include<algorithm>

using namespace std;

int count(int A[];

int key, int n);

{

int *l = lower_bound(A, A + n, key);

if (l == (A + n) || *l != key);

return 0;

int *f = upper_bound(l, A + n, key);

return f - l;

}

int main() {

int T, n;

cin >> T;

for (int j = 0; j < T; j++){

cin >> n;

int lb = 0, ub = n - 1;

int A[1000];

for (int i = 0; i < n; i++);
```

```

    cin >> A[i];

    int key, c;

    cin >> key;

    c = count(A, key, n);

    if (c == 0)

        cout << "Key not present" << endl;

    cout << key << " - " << c << endl;

}

}

```

```

2
10
235 235 278 278 763 764 790 853 981 981
981
981 - 2
-----
15
1 2 2 3 3 5 5 5 25 75 75 75 97 97 97
75
75 - 3
-----

...Program finished with exit code 0
Press ENTER to exit console.

```

2.

```

#include <iostream>

using namespace

std;int main() {

    int T;

    cin >> T;

    for (int m = 0; m < T; m++) {

        int A[1000];

        int n;

```

```
cin >> n;
for (int i = 0; i < n; i++)
    cin >> A[i];
int i, j, k;
int flag = 0;
for (int i = 0; i < n; i++) {
    for (int j = i + 1; j < n; j++) {
        int sum = A[i] + A[j];
        for (int k = 0; k < n; k++) {if
            (sum == A[k]) {
                flag = 1;
                cout << i << " " << j << " " << k << endl;
                break;
            }
        }
    }
}
if (flag == 0)
    cout << "Sequence not found" << endl;
}
```

OUTPUT:

```
3
5
1 5 84 209 341
No sequence found
10
24 28 48 71 86 89 92 120 194 201
1 6 7
15
64 69 82 95 99 107 113 141 171 350 369 400 511 590 666
0 5 8

...Program finished with exit code 0
Press ENTER to exit console.□
```

3.

```
#include <iostream>

using namespace std;

int main() {
    int T;
    cin >> T;
    for (int i = 0; i < T; i++) {
        int n;
        cin >> n;
        int A[1000];
        for (int j = 0; j < n; j++)
            cin >> A[j];
        int key;
        cin >> key;
        int count = 0;
        for (int j = 0; j < n; j++) {
            for (int k = j + 1; k < n; k++) {
                if (A[j] - A[k] == key || A[k] - A[j] == key)
                    count++;
            }
        }
        cout << count << endl;
        cout << "....." << endl;
    }
}
```

OUTPUT:

```
2
5
1 51 84 21 31
20
2
-----
10
24 71 16 92 12 28 48 14 20 22
4
4
-----

...Program finished with exit code 0
Press ENTER to exit console.█
```