Quiz 1

```
int A[] = new int[5];
SOP(A[5] + A[6]);
```

1. 0 2. Error

Last index is 4

Out of bounds error

Quiz 2

Array of size N

What is index of last element?

N-1

Q1 Given an array A[] of size N

Search for an element K

Return True if it's present

Else False

	0	1	2	3	4	5	6
A:	3	2	8	9	14	10	7

K: 8 → True

K: 1 → False

```
boolean search(int A[], int K){
```

```
    int n = A.length;
    for(int i=0; i<n; i++){
        if(A[i]==k){
A: 3 2 8 6               return true;
K: 2                }
        }
        return false;
    }
```

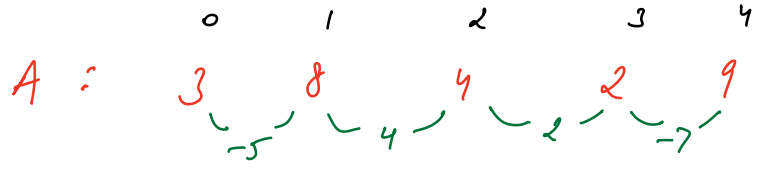
Q2 Given an array A of size N
Return the frequency of element
K in the array

```
      1     2   3 4
A: 3, 4, 1, 3, 7, 3, 3, 8
K: 3 => 4
```

```
int count(int A[], int k){
    int n = A.length;
    int cnt = 0;
    for(int i=0; i<n; i++){
        if(A[i]==k){
            cnt = cnt+1;
        }
    }
    return cnt;
}
```

Q3 Given an array A. Return true if diff b/w any adjacent elements is equal to k

$A[i] - A[i+1] = k$



k : -7 ⟶ True

k : -2 ⟶ False

```
boolean findDiff(int A[], int k){

    int n = A.length;
    for(int i=0; i<n-1; i++){
        if(A[i]-A[i+1] == k){
            return true;
        }
    }
    return false;
}
```

A[i] - A[i+1] i = n-1

A[n-1] - A[n]

↳ Error

Break – 10:05 pm

Array List

Shopping list
Task list
Cart

Array – Static list
Array List – Dynamic list

Syntax

```
ArrayList<Class> list2 = new ArrayList<Class>();
```

Integer, Long, Double, Float, Boolean, String

int, long, double etc → primitives

Basic Ops

Add

arr :

```
arr.add(10);
arr.add(5);
arr.add(-1);
```

: 10 (0)

: 10, 5 (0, 1)

: 10, 5, -1 (0, 1, 2)

Get

```
arr.get(1);   ⇒ 5
arr.get(2);   ⇒ -1
arr.get(4);   ⇒ Error
arr.get(-2);  ⇒ Error
```

Size

```
arr.size();   ⇒ 3
```

: 10, 5, -1 (0, 1, 2)

Update

```
arr.update(1, 7);
arr.update(0, 3);
arr.update(4, 1);   ⇒ Error
```

: 10, 7, -1 (0, 1, 2)

: 3, 7, -1