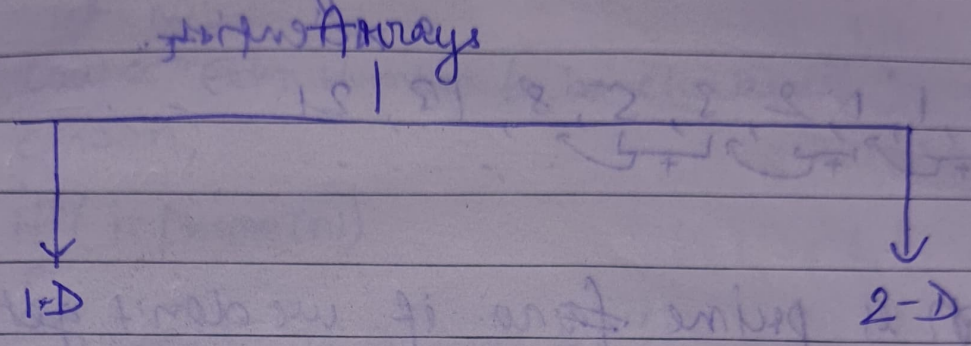
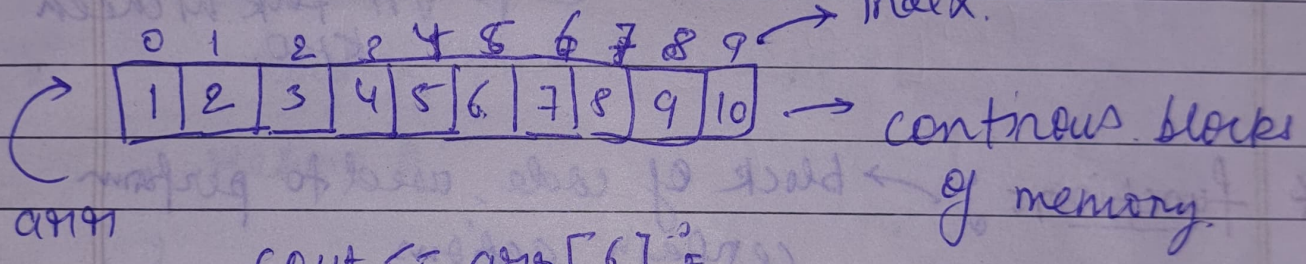
* Arrays




```
int arr[10];
```




```
cout << arr[6];
```

Output :- 5,

ex.

```
int main()
{
    int arr[10];
    for(int i=0; i<=5; i++)
    {   cin >> arr[i];
    }
    for ( int i=0; i<5; i++)
    {       cin>>arr[i];
    }
    return 0;
}
```

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* Fabonacci series } → seen in nature everywhere named on a scientist.

0, 1, 1, 2, 3, 5, 8, 13, 21 ---

* n is prime ~~fa~~ no. if we don't get any factor $<= \sqrt{n}$, { check ki karna h to $\sqrt{n}$ tak hi check kro.

* functions : → block of code, used to perform certain actions

return ~~data~~ type

bool → Just like int, char, float

"ya toh true return karega ya false".

```
#include<iostream>
using namespace std;
bool isPrime(int n)
{
    if(n==2)
        return true;
    for(int i=2; i*i<=n; i++)
    {
        if((n%i)==0)
            return false;
    }
    return true;
}
```

```
int main()
{
  int no;
  cout<<"Enter Number to be checked:";
  cin>>n;
  if(isprime(n))
  {
    cout<<"is a prime no";
  }
  else
    cout<<"Not a prime no";
  return 0;
}
```

Call by reference → call karte waqt normal hi likhte h bs definition mein '&' laga diya.

```
#include<iostream>
using namespace std;
void change(int &no)        → address chhaye 'n' ka.
{
    no=no*no;
    cout<<"Value in func:"<<no<<endl;
}
```

Array

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① initialization

int a[10] = {0}; ⟶ |0|0|0|0|---|0|

int a[10] = {5}; ⟶ |5|0|0|0|0|---|0|

int a[10] = {1,2,3}; ⟶ |1|2|3|0|0|0|---|0|

② Size of array
int → 4 bytes
so (4*n) → size of array
by funct.

sizeof(a) / sizeof(int) = n (no. of elements)

③ to find largest b/w two no.

largest = max(largest, a[i])
smallest = min(smallest, a[i])

↳ used in place of if else

int largest = INT_MAX; (to -∞)
int smallest = INT_MIN (to ∞)

but before this we have to include <limits.h>