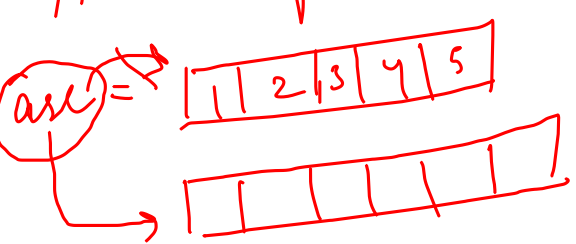


Figure out the correct statement for the below line of code

```
int[] arr = new int[5];
arr = new int[6];
```

o/p \rightarrow compile successfully.
reference is changed.



0	1	2	3	4
0	0	0	0	0

What will be the output of the following code ?

```
int arr[] = new int[5];
System.out.println(arr[0]);
```

o/p \rightarrow 0

What will be the output of the following code in Java ?

```
char chArray[] = new char[15];
System.out.println(chArray[15]);
```

o/p \rightarrow error, index out of bound.

SC \rightarrow 0(1)
TC \rightarrow 0(1)

What will be the output of the following code ?

```
boolean arr[] = new boolean[5];
System.out.println(arr[0]);
```

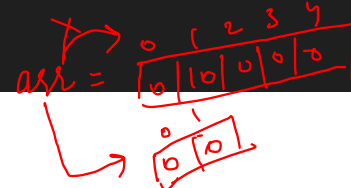
o/p \rightarrow false

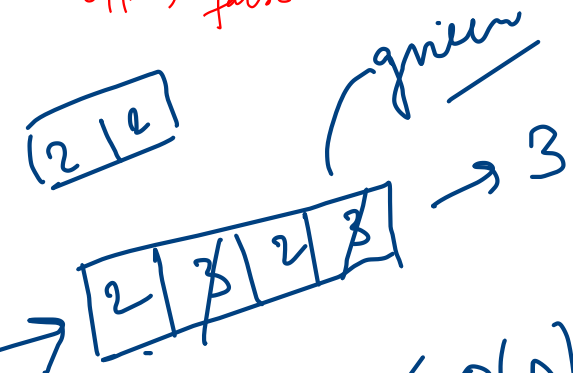
What will be the output ?

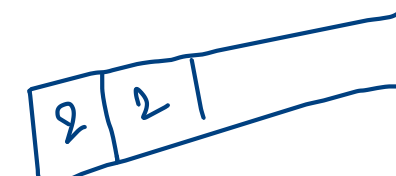
```
public class Main {
    public static void main(String args[]) {
        int arr[] = new int[5];
        arr[1] = 10;
        arr = new int[2];
        System.out.println(arr[0]);
    }
}
```

TC \rightarrow 0(1)
SC \rightarrow 0(1)

o/p \rightarrow 0



o(1) \rightarrow 
a[c+1] \checkmark o(n)

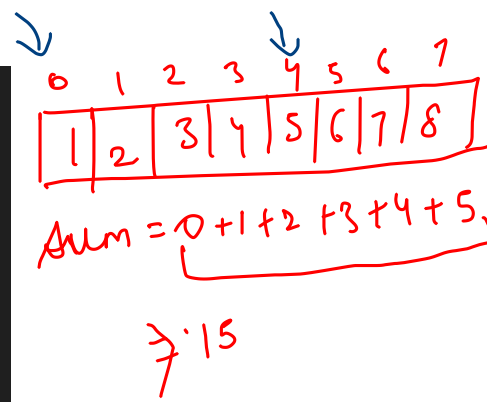
ans = 
o(n)

What will be the output of the following code?

```
public static int sum(int [] arr)
{
    int arrsum=0;
    for(int i=0;i<5;i++) {
        arrsum+=arr[i];
    }
    return arrsum;
}

public static void main (String[] args) {
    int arr[]={1,2,3,4,5,6,7,8};
    System.out.print(sum(arr));
}
```

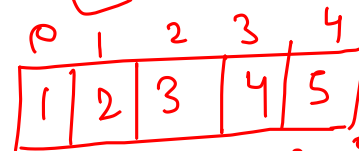
$TC \rightarrow O(n)$
 $SC \rightarrow O(1)$



$n \times n \rightarrow n^2$
 $n + n \rightarrow 2n$

~~O/P $\rightarrow 0, \{1, 2, 3, 4, 5\}, 120$~~
 $\{0, 0, 0, 0, 0\}$
 $[0, 2, 6, 12, 20]$

0
2
6
12
20



$arr[i] = arr[i] \times i$
 $arr[0] = arr[0] \times 0$
 $= 1 \times 0$
 $arr[1] \rightarrow 2 \times 1$
 3×2
 4×3
 5×4

What will be the output of the following code?

```
public static void mul(int [] arr)
{
    for(int i=0;i<5;i++)
        arr[i]*=i;
}

public static void main (String[] args) {
    int arr[]={1,2,3,4,5};
    mul(arr);
    for(int i=0;i<5;i++)
    {
        System.out.print(arr[i]);
    }
}
```

$TC \rightarrow O(n)$
 $SC \rightarrow O(1)$

0 2 6 12 20 ✓ Ans.

What will be the output of the following code ?

```
public class Main {
    public static void change(int input[]){
        input[0] = 15;
    }

    public static void main(String args[]){
        int arr[] = new int[5];
        change(arr);
        System.out.println(arr[0]);
    }
}
```

SP → O(1)
TC → O(1)



o/p → 15 ✓

What will be the output of the following Java code?

```
public class Main {
    public static void change(int input[]){
        input = new int[5];
        input[0] = 15;
    }

    public static void main(String args[]){
        int arr[] = new int[5];
        change(arr);
        System.out.println(arr[0]);
    }
}
```

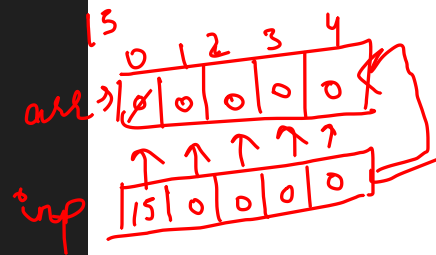
TC → O(1)
SP → O(n)

o/p → 0

What will be the output of the following code?

```
public static int[] change(int input[]){
    input = new int[5];
    input[0] = 15;
    return input;
}

public static void main(String args[]){
    int arr[] = new int[5];
    arr = change(arr);
    System.out.println(arr[0]);
}
```



TC → O(1)
SC → O(n)

o/p → 15

Arrays → collection of similar data types.

✓

1	8	2	4	1
---	---	---	---	---

✓

1	2	3	'a'	'b'
---	---	---	-----	-----

 ✗

✓

'a'	'b'	'c'	'd'
-----	-----	-----	-----

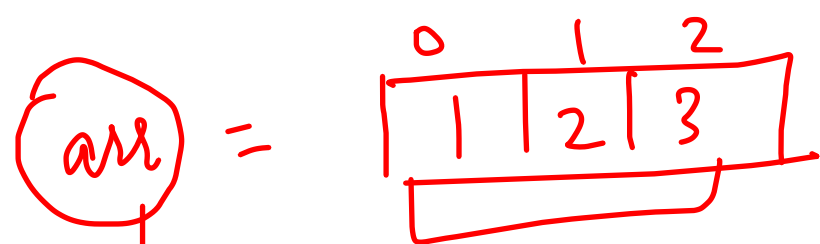
data type array name[] = new datatype[size];

→ int arr[] = new int[5];

→

0	1	2	3	4

arrays - references.



arr[i]

address

400 0 1 2

arr.length

in-built func - to find length

[] - index
0	1	2	3	4	
1	2	3	4	5	

i = 0 < 5 ✓

arr[0] = 1

i = 1 < 5 ✓

arr[1] = 2

i = 2 < 5

arr[2] = 3

i = 3 < 5

arr[3] = 4

i = 4 < 5

arr[4] = 5

i = 5 < 5 ✗

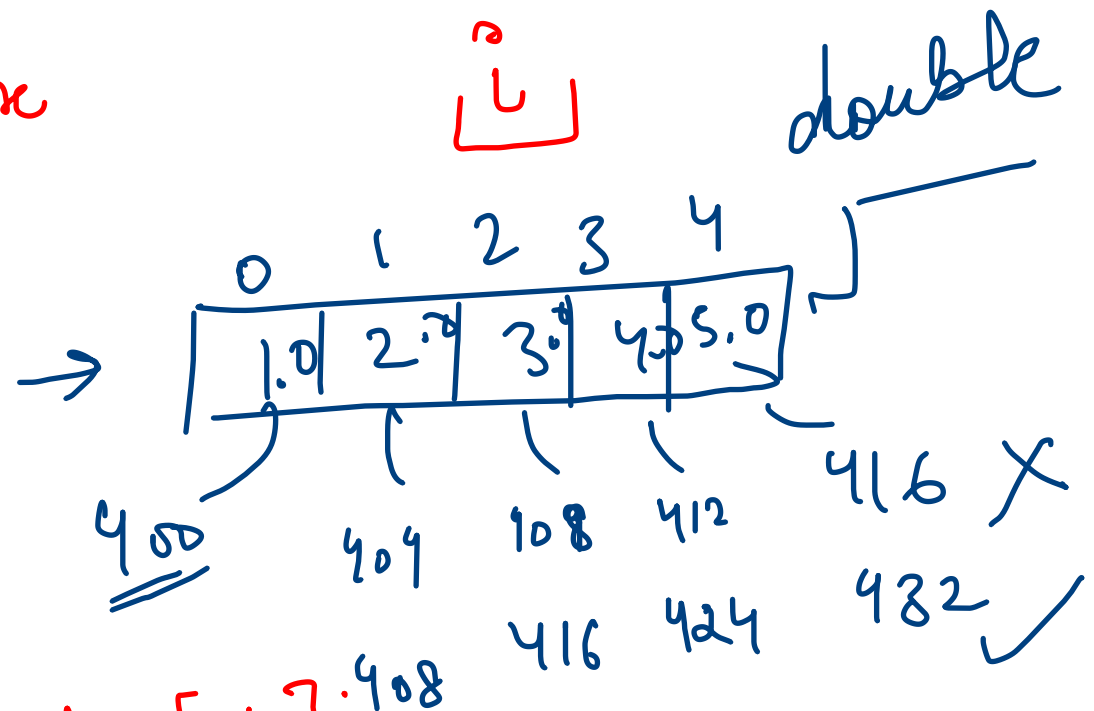
@

arr_name[index] \rightarrow array elements arr[i]

arr[0] \rightarrow 1.

index \rightarrow print "index"

i \rightarrow 0

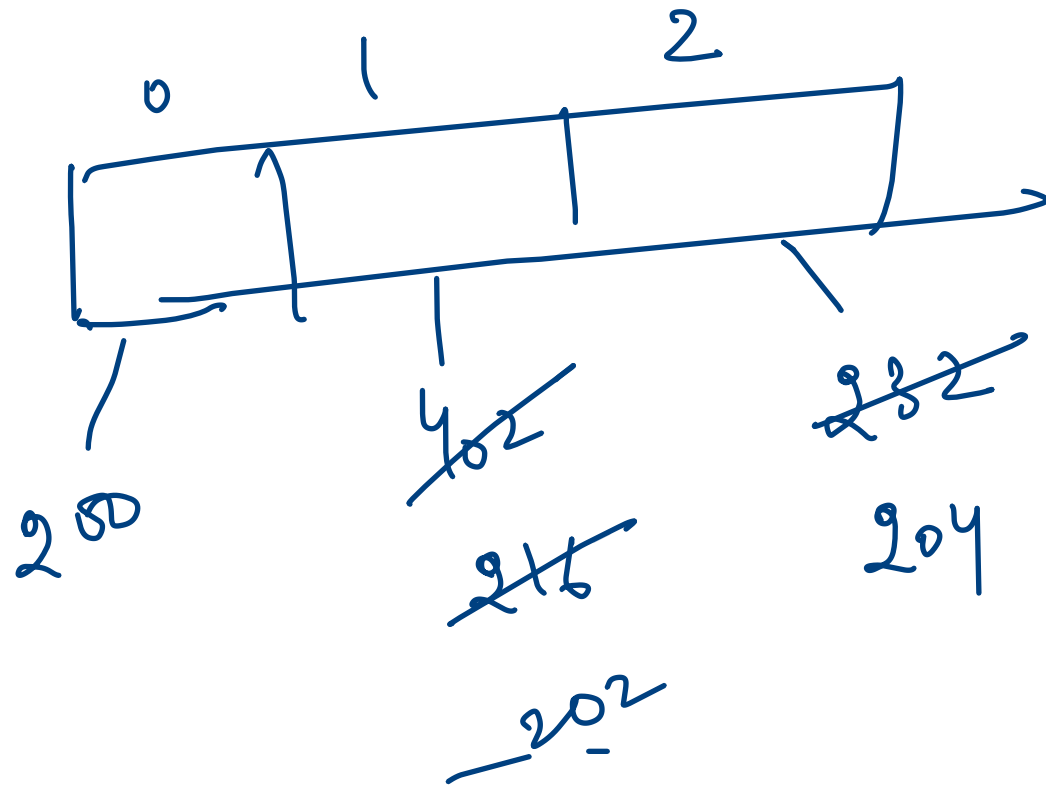


double d[] = new double[10];

\rightarrow datatype \times size

$8 \times 10 = \underline{80 \text{ bytes}}$

char ch[] = new char[3]



why?

char → 16 bit

1 by - 8 bit



Arrays in functions

→ int[]

strings

public static int[] sum (int a, int b) {
char[]

returns array name

} char ch
int ans

int ans[] = sum(a, b)

for () {

}

calling a fun.
collect a fun.