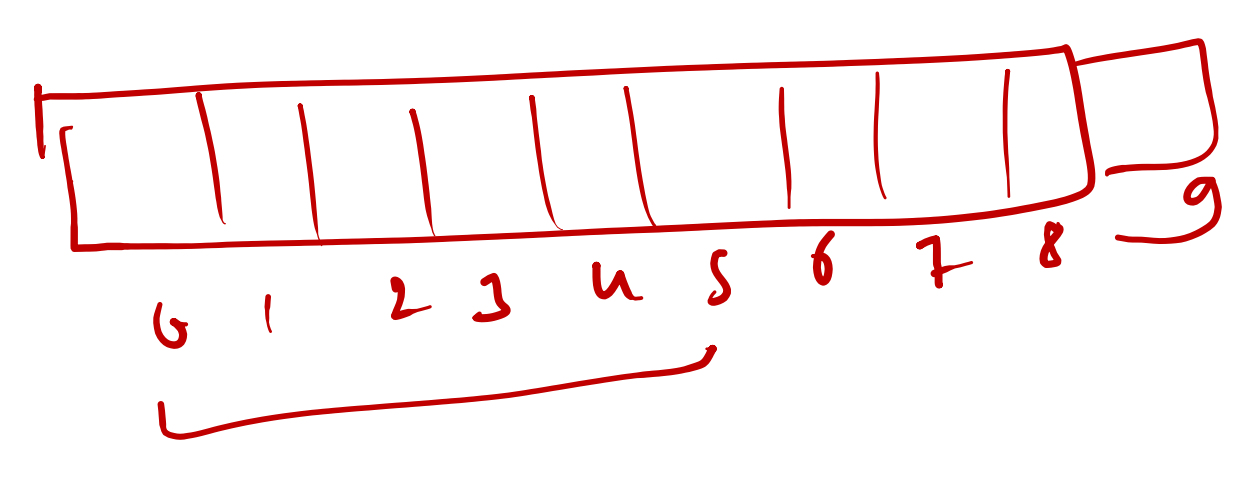
Lec-7
27/07/24 10:02 AM

Array → Linear Data Str
↳ 100 marks
1000

Contenus data

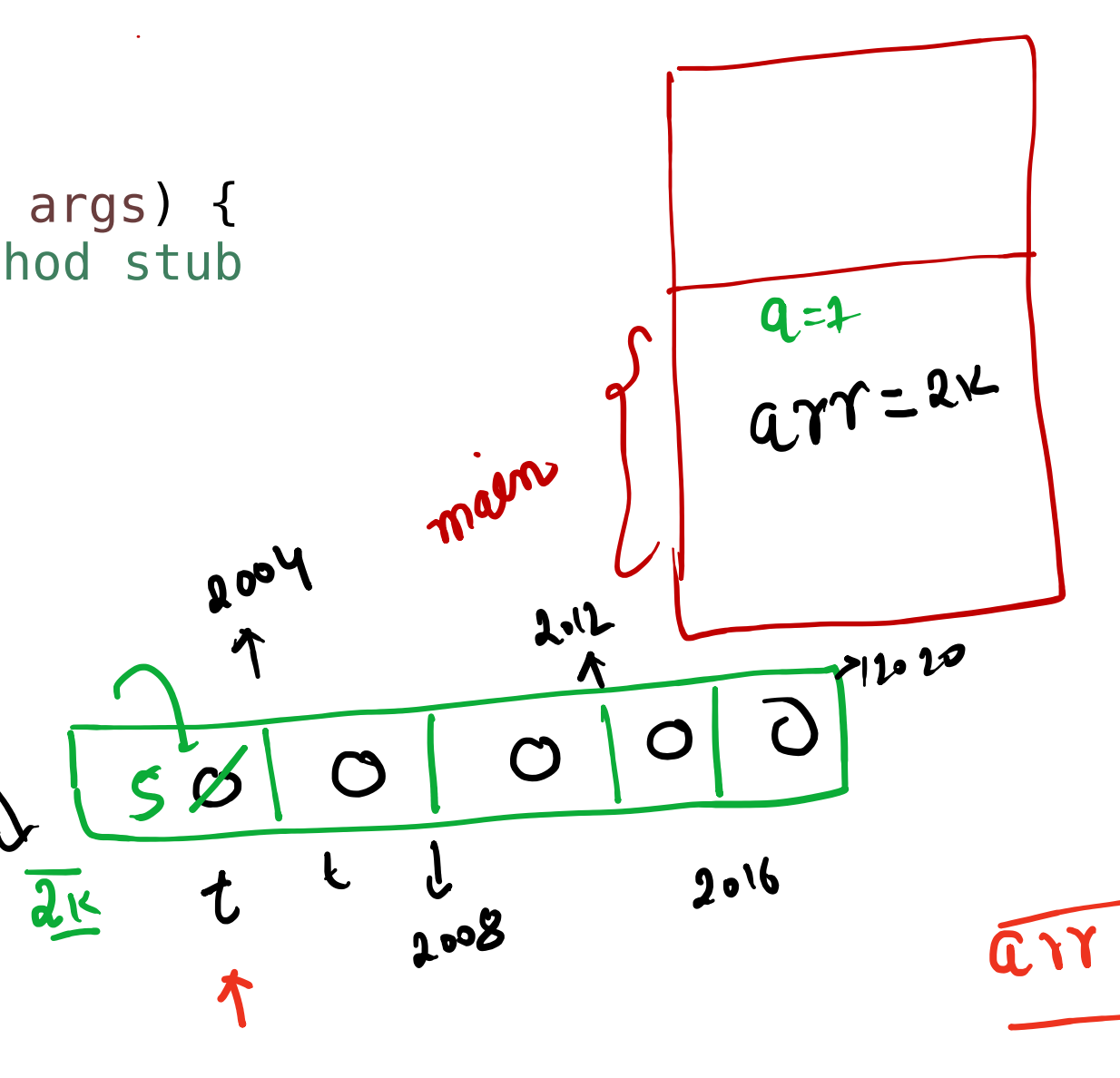


(i) non-primitive
(ii) heap memory

4byte X 5=20

```
public static void main(String[] args) {
        // TODO Auto-generated method stub
//      int a;
        int []arr = new int[5] ;
    }
```

L.H.S R.H.S



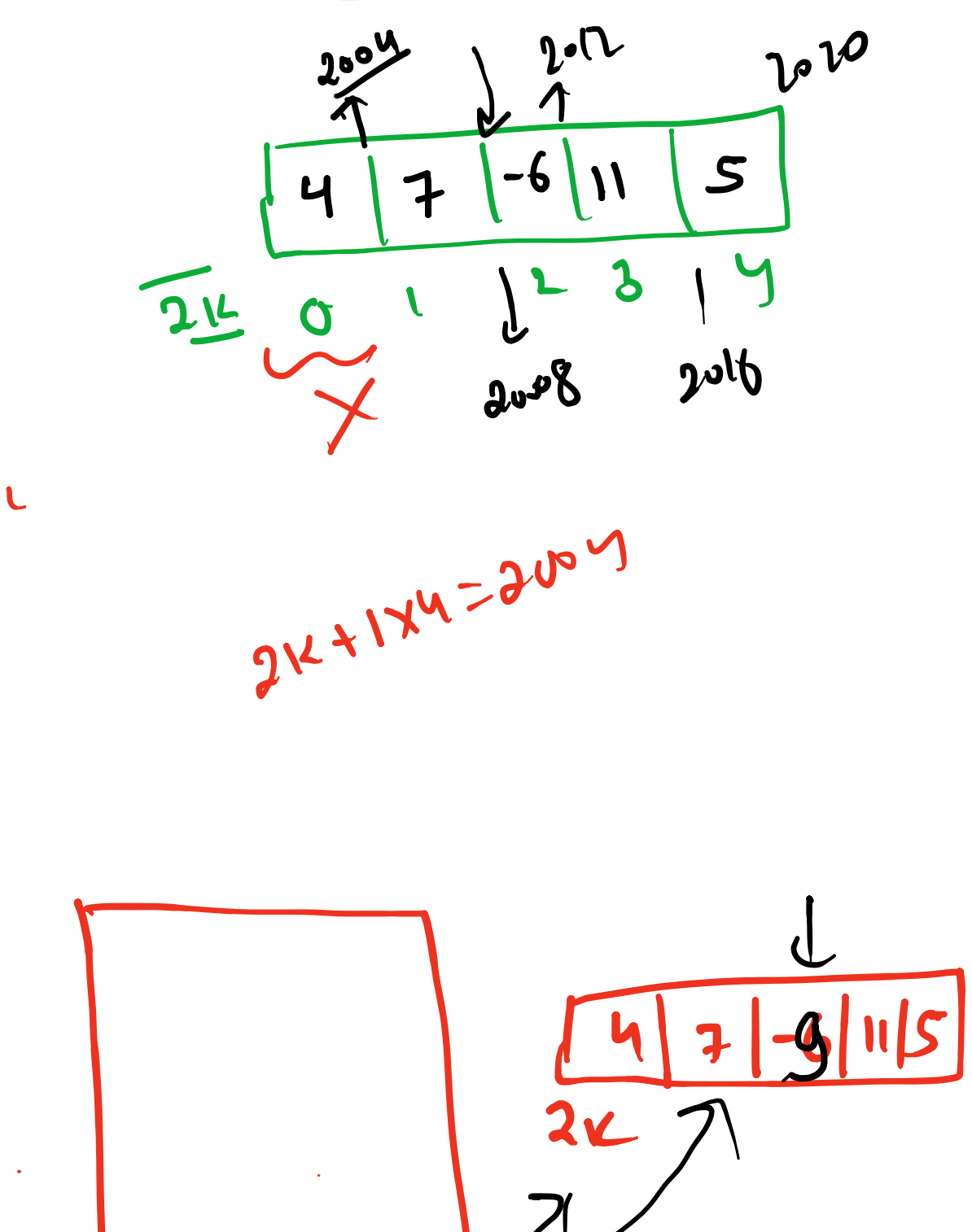
Sysout(arr[0])

int x= arr[0]

arr [0] = 5
arr [1] = 7
arr[2] = -9
arr[3] = 4
arr[4] = 11

```
public static void main(String[] args) {
        // TODO Auto-generated method stub
//      int a;
        int[] arr = new int[5];
        System.out.println(arr);
        System.out.println(arr[1]);//
        arr[0] = 4;
        arr[1] = 7;
        arr[2] = -6;
        arr[3] = 11;
        arr[4] = 5;
        System.out.println(arr[0]);
        System.out.println(arr[1]);
        System.out.println(arr[2]);
        System.out.println(arr[3]);
        System.out.println(arr[4]);
        System.out.println(arr);
    }
```

0 to 4



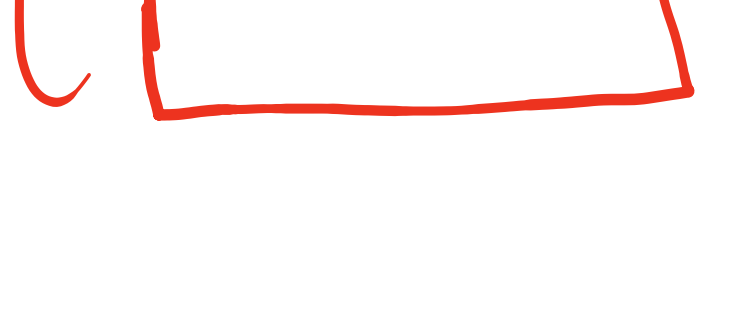
arr(2)

arr = 2K
2K + 2 X 4 = 2008

2K+1X4=2004

```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] arr = new int[5];
        System.out.println(arr);
        System.out.println(arr[1]);//
        arr[0] = 4;
        arr[1] = 7;
        arr[2] = -6;
        arr[3] = 11;
        arr[4] = 5;
        System.out.println(arr[0]);
        System.out.println(arr[1]);
        System.out.println(arr[2]);
        System.out.println(arr[3]);
        System.out.println(arr[4]);
        System.out.println(arr);
        System.out.println(arr.length);
        int []other = arr;
    }
```

othe(2) = -9

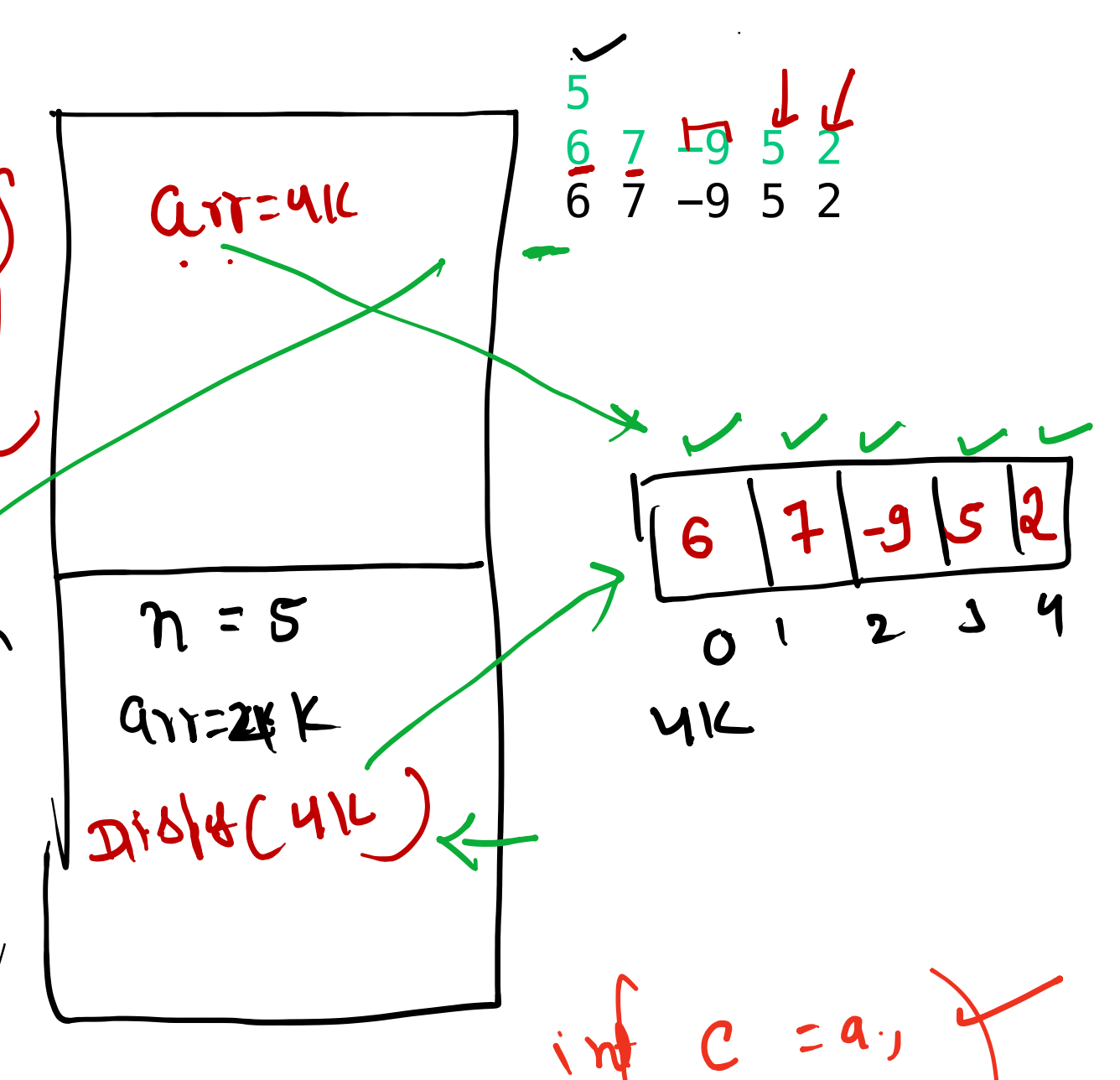


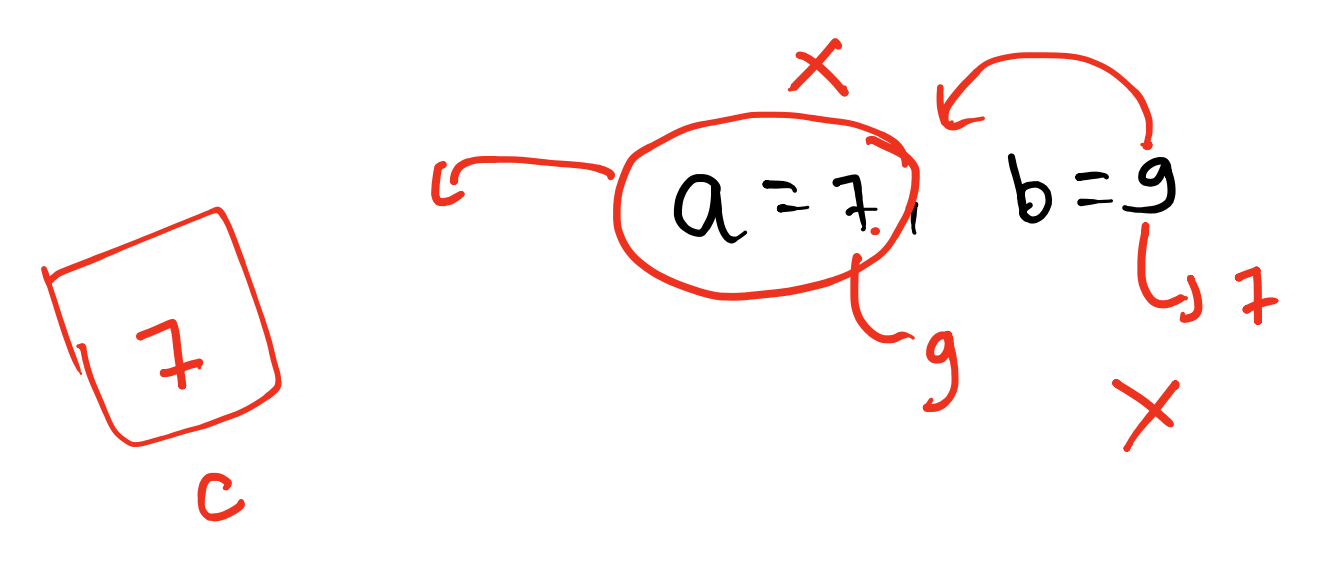
```
public class Take_Input {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for (int i = 0; i < arr.length; i++) {
            arr[i] = sc.nextInt();
        }
        Display(arr);
    }
    public static void Display(int[] arr) {
        // TODO Auto-generated method stub
        for (int i = 0; i < arr.length; i++) {
            System.out.print(arr[i] + " ");

        }
        System.out.println();
    }
```

```
5
6 7 -9 5 2
6 7 -9 5 2
```



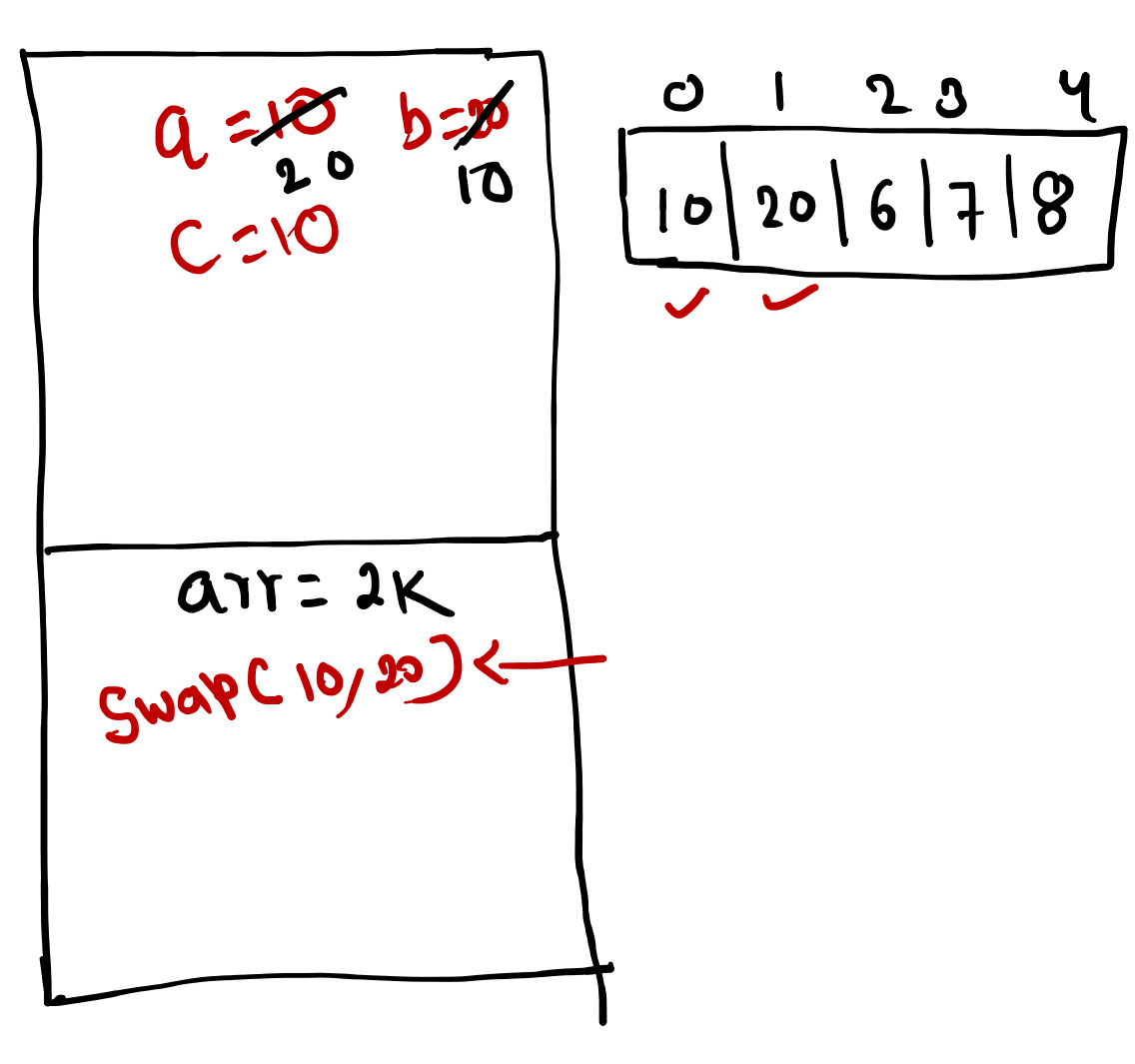


int c = a;
a = b; → 9
b = c → 7

```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] arr = { 10, 20, 6, 7, 8 };
//      int[] arr = new int[] { 10, 20, 6, 7, 8 };
        System.out.println(arr[0] + " " + arr[1]);// 10 20
        Swap(arr[0], arr[1]);
        System.out.println(arr[0] + " " + arr[1]);//
    }

    public static void Swap(int a, int b) {
        int c = a;
        a = b;
        b = c;
    }
```

Swap



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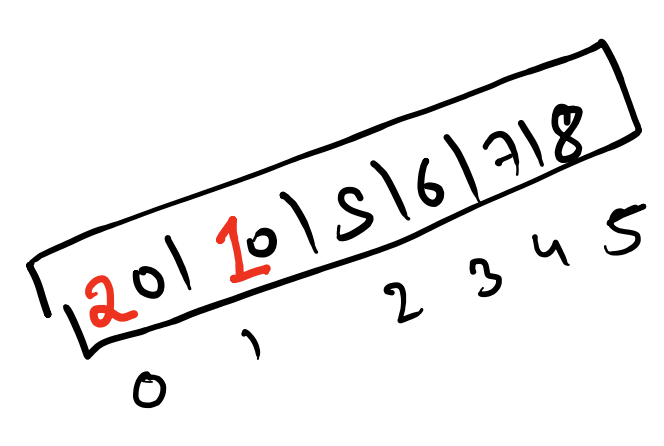
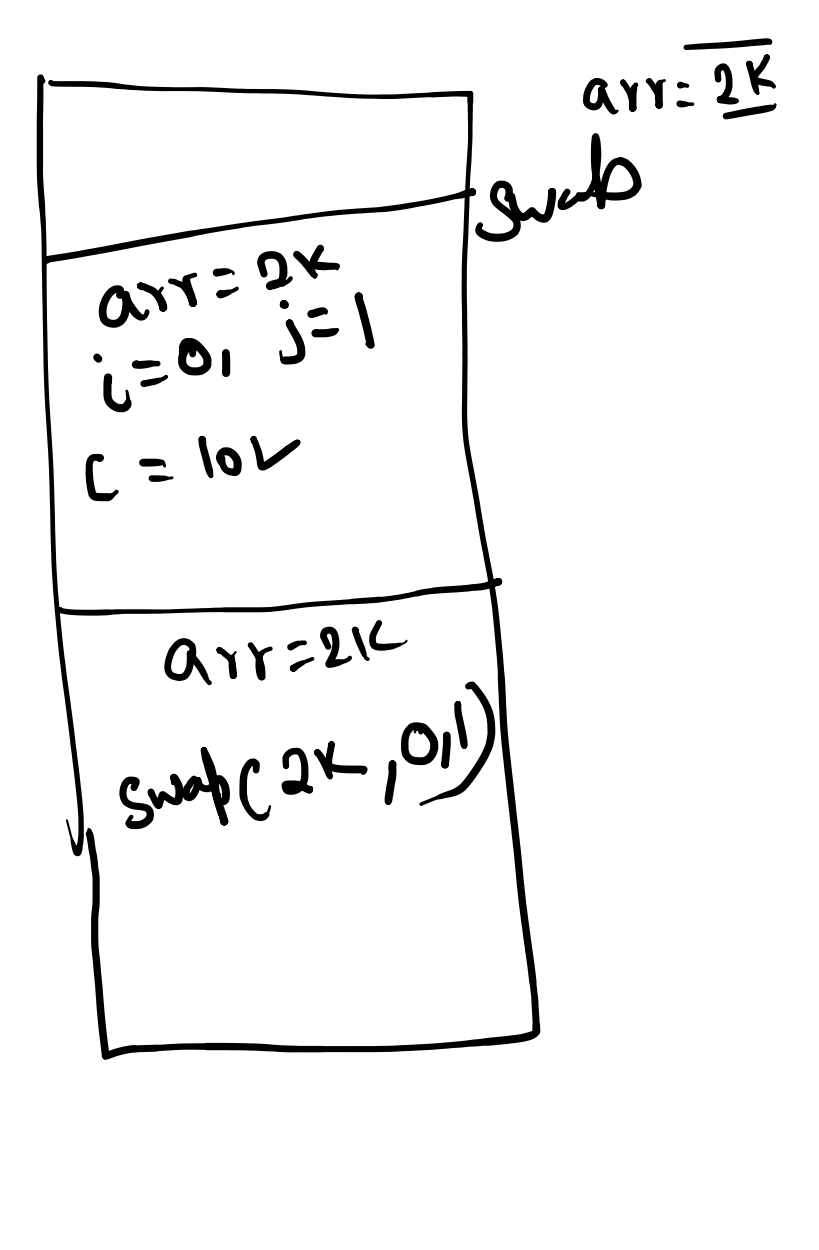
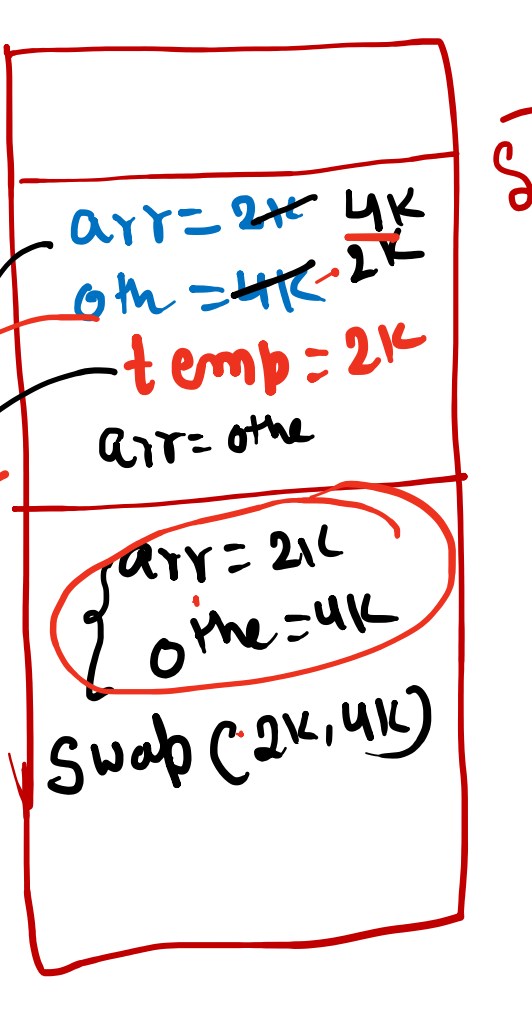
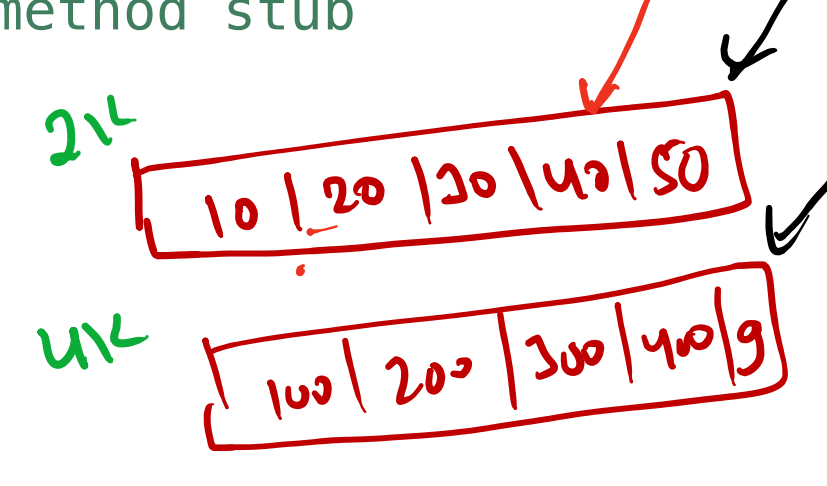
```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] arr = { 10, 20, 5, 6, 7, 8 };
        System.out.println(arr[0] + " " + arr[1]);
        Swap(arr, 0, 1);
        System.out.println(arr[0] + " " + arr[1]);
    }

    public static void Swap(int[] arr, int i, int j) {
        int c = arr[i];
        arr[i] = arr[j];
        arr[j] = c;
```





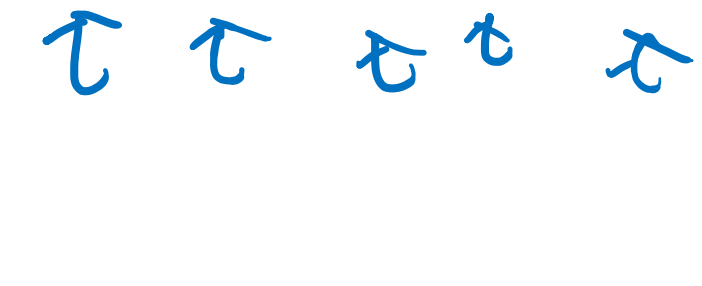
```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] arr = { 10, 20, 30, 40, 50 };
        int[] other = { 100, 200, 300, 400, 9 };
        System.out.println(arr[0] + " " + other[0]);// 10 100
        Swap(arr, other);
        System.out.println(arr[0] + " " + other[0]);//
    }

    public static void Swap(int[] arr, int[] other) {
        // TODO Auto-generated method stub
        int[] temp = arr;
        arr = other;
        other = temp;
    }
```

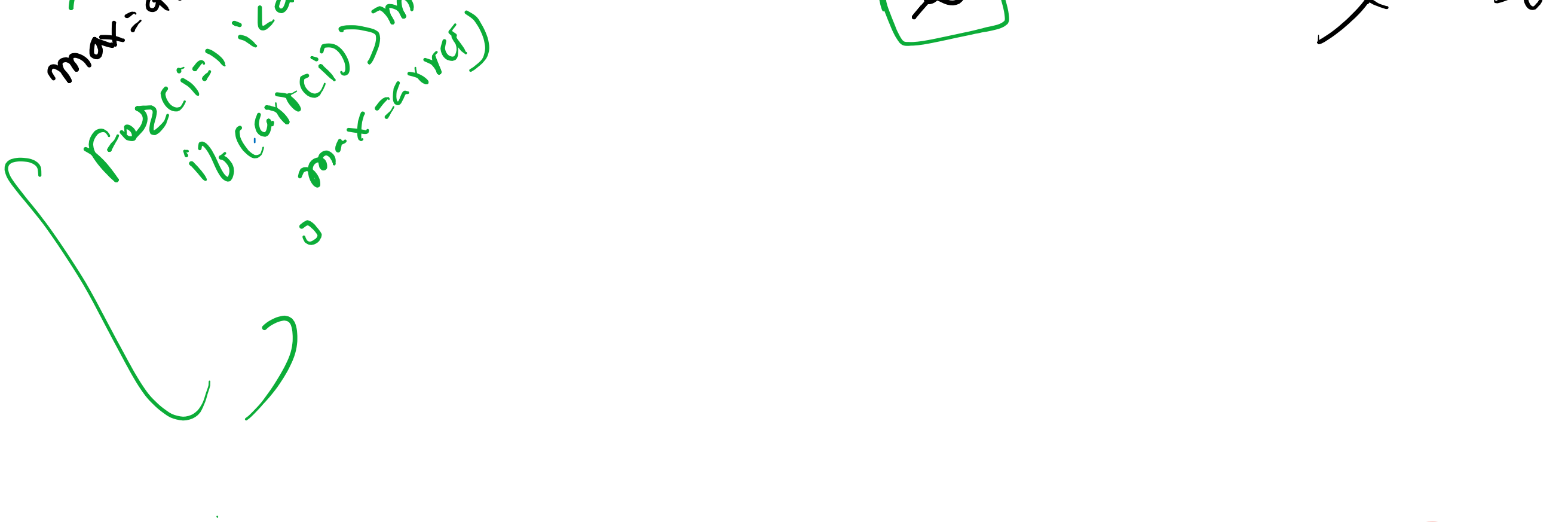




```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] arr = { 3, 5, 6, 2, 4, 16, 7, 8, 9 };
        int item = 5;
    }

    public static int Search(int[] arr, int item) {


    }
```

```
public static int Search(int[] arr, int item) {

        for (int i = 0; i < arr.length; i++) {
            if(arr[i]==item) {
                return i;
            }
        }
        return -1;
    }
```





max=arr(0)
for(i=1 i<arr.len i++){
if(arr(i)>max){
max=arr(i)
}

```
public static void Reverse(int[] arr) {
        // TODO Auto-generated method stub
        int i = 0;
        int j = arr.length - 1;
        while (i < j) {
            int temp = arr[i];
            arr[i] = arr[j];
            arr[j] = temp;
            i++;
            j--;
        }

    }
```