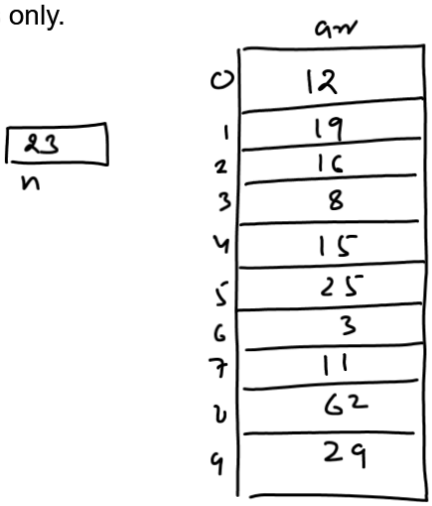
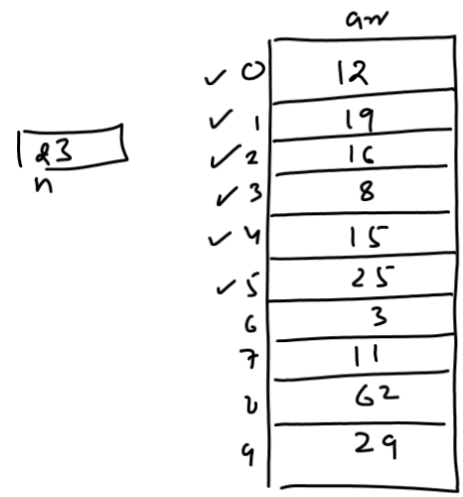
SEARCHING IN AN ARRAY (Linear Search)

WAP to accept 10 integers from the user and store them in an integer array. Now ask the user to input another number and find out whether the number is present in the array or not. If it is present then print its POSITION otherwise print the message NUMBER NOT FOUND. Assume that the array contains UNIQUE elements only.



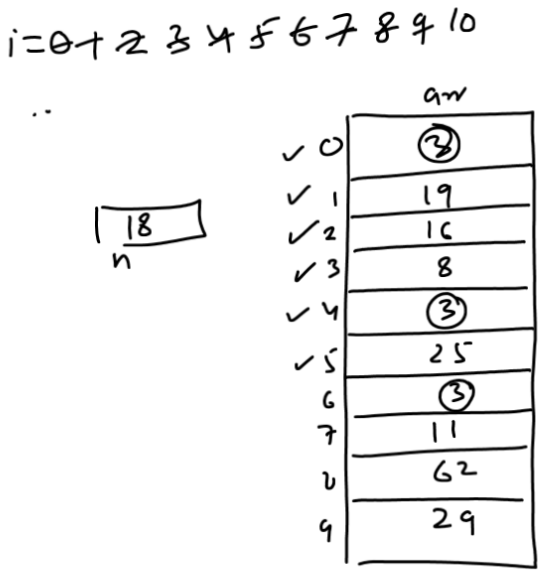

```
int main()
{
  int arr[10],i,n;
  for(i=0;i<=9;i++)
  {
     printf("Enter no:");
     scanf("%d",&arr[i]);
  }
  printf("Enter number to search:");
  scanf("%d",&n);
  for(i=0;i<=9;i++)
  {
      if(arr[i]==n)
         break;
  }
 if(i==10)
      printf("Number not found!");
else
     printf("Number is at pos %d",i+1);
return 0;
}
```

i=0 1 2 3 4 5 6 7 8 9 10



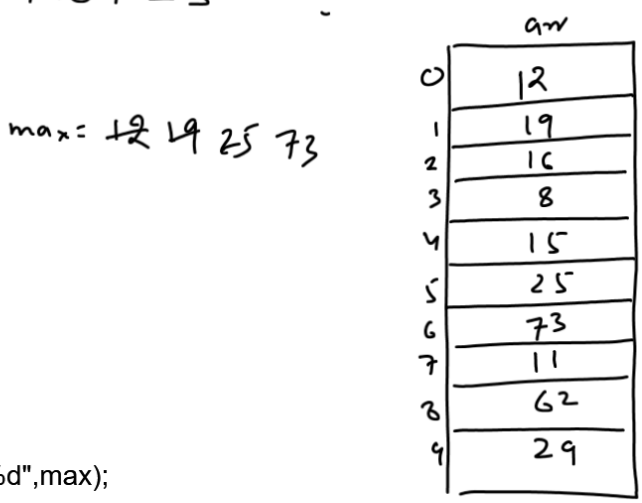
```
int main()
{
   int arr[10],i,n,count=0;
   for(i=0;i<=9;i++)
   {
      printf("Enter no:");
      scanf("%d",&arr[i]);
   }
   printf("Enter number to search:");
   scanf("%d",&n);
   for(i=0;i<=9;i++)
   {
       if(arr[i]==n){
          printf("\nNumber is at pos %d",i+1);
          ++count;
       }

   }
 if(count==0)
       printf("Number not found!");
return 0;
}
```

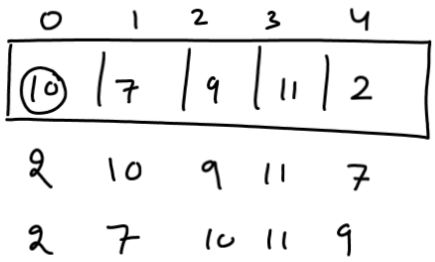


WAP to accept 10 integers from the user and store them in an array. Now find out the LARGEST number in the array. Make sure that your code should not change the original order of elements in the array.

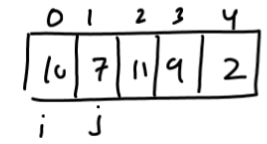
```
int main()
{
   int arr[10],i,max;
   for(i=0;i<=9;i++)
   {
      printf("Enter no:");
      scanf("%d",&arr[i]);
   }
  max=arr[0];
   for(i=1;i<=9;i++)
   {
        if(arr[i]>max)
             max=arr[i];
   }
   printf("Largest num in the array is %d",max);
 return 0;
}
```

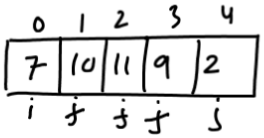


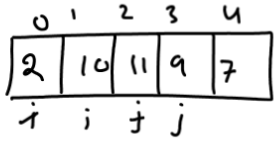
Sorting

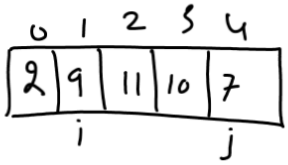


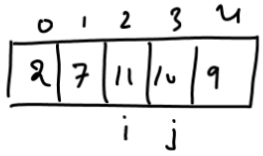

```
int main()
{
  int arr[5],i,j,temp;
  for(i=0;i<=4;i++)
  {
    printf("Enter no:");
    scanf("%d",&arr[i]);
  }
  for(i=0;i<4;i++)
  {
     for(j=i+1;j<5;j++)
        {
          if(arr[i]>arr[j])
           {
             temp=arr[i];
             arr[i]=arr[j];
             arr[j]=temp;
           }
        }
  }
  for(i=0;i<=4;i++)
       printf("\%d",arr[i]);
return 0;
```

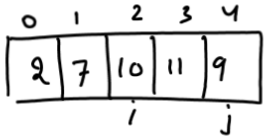


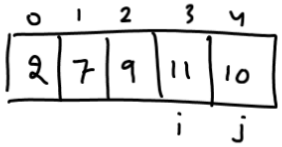


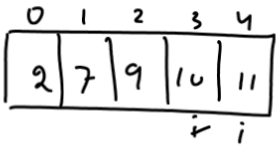








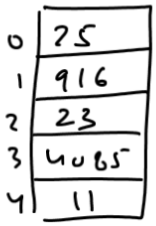




ASSIGNMENTS

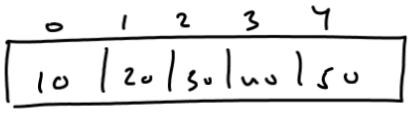
Qn1. WAP to accept 10 integers from the user and store them in an array. Now find out the LARGEST NUMBER, SMALLEST NUMBER as well as their positions in the array. Make sure that your code should not change the original order of elements in the array.

Qn2. WAP to accept 5 integers from the user , store them in an array and find out the sum of the digits of all the nos in the array.



Sum of digits of 25 = 7
" " " " 916 = 16
⋮

WAP to accept 5 integers from the user , store them in an array and prin them in following order:



10 20 30 40 50

20 30 40 50 10

30 40 50 10 20

40 50 10 20 30

50 10 20 30 40