Armstrong or not:

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
    int n,c=0,m,s=0,r;
    printf("Enter a no:");
    scanf("%d",&n);
    m=n;
    while(n>0)
        {
                n=n/10;
                c=c+1;
        }
    printf("\n Length of the no = %d", c);
n=m;
    while(n>0)
        {
                r= n%10;
                s=s+pow(r,c);
                n=n/10;
        }
    if(s==m)
    printf("\n %d is an Armstrong No",m);
    else
    printf("\n %d is not an Armstrong
    No",m );
}
```

One dimensional Array: int a[];

Enter some no in an array and show them:

```
void main()
{
int a[20],i,n;
printf("how many number you want to input:");
scanf("%d",&n);
for(i=0;i<n;i++)
   {
      printf("enter the number%d:",i+1);
      scanf("%d",&a[i]);
   }
for(i=0;i<n;i++)
printf("%d\t",a[i]);
}
```

Output:

```
how many number you want
to input:5
enter the number1:2
enter the number2:5
enter the number3:8
enter the number4:4
enter the number5:9



2     5     8     4     9
```

Insert an element in an array:

- We can insert the element
  - at the starting of the array
  - in the end of the array
  - in between two elements
- The size of the array increases by 1, after the element is inserted. i.e. n will be n+1

Suppose we want to insert an element k at position pos in the array of n elements:

```
void insert(int a[], int pos, int k, int n)
 {
  int j;
  for(j=n;j>=pos;j--)
      {
        a[j+1] = a[j];
      }
   if(pos > n)
    printf(“insertion is not possible”);
   a[pos] = k;
   n++;
 }
```

Delete an element from an array:

- We can delete an element
  - from the starting of the array
  - from the end of the array
  - in between two elements
- The size of the array will be decremented by 1, after the element is deleted.

Suppose we want to delete an element from position i in the array of n elements:

```
void delete(int a[], int i, int n)
 {
   int j,x;
   x = a[i];
   for(j=i; j <= n-1; j++)
      {
        a[j] = a[j+1];
      }
    n--;
  }
```

Find the output:

```
void main()
  {
   int a[]={5,1,15,20,25};
   int i,j,k;
   i=++a[1];
   j=a[1]++;
   k=a[i++];
   printf("%d%d%d",i,j,k);
 }
```

output: 3 2 15

Two dimensional Array: int a[][];

Display the matrix form using 2-D array:

```
void main()
{
     int i,no[6][6],j,n,t,r,c;
     printf("How many row you want to enter: ");
     scanf("%d",&r);
     printf("How many column you want to
     enter: ");
     scanf("%d",&c);
     for(i=0;i<r;i++)
     for(j=0;j<c;j++)
     {
       printf("Enter no[%d][%d]:",i+1,j+1);
       scanf("%d",&no[i][j]);
     }
```

```
for(i=0;i<r;i++)
     {
      for(j=0;j<c;j++)
           {
                printf("%d\t",no[i][j]);
           }
       printf(“\n”);
     }
  }
```