```c
#include <stdio.h>
#include <stdlib.h>
int powerfun(int, int);
int main()
{
    int n, sum = 0, temp, remainder, digits = 0;
    printf("ARMSTRONG NUMBER USING RECURSION");
    printf("Input number to check Armstrong or not: ");
    scanf("%d", &n);
    temp = n;
    while (temp != 0) {
        digits++;
        temp = temp/10;
    }
    temp = n;
    while (temp != 0) {
        remainder = temp%10;
        sum = sum + powerfun(remainder, digits);
        temp = temp/10;
    }
    if (n == sum)
        printf("%d is an Armstrong number.\n", n);
    else
        printf("%d is not an Armstrong number.\n", n);
    getch();
}
int powerfun(int num, int r) {
    int c, res = 1;
    for (c = 1; c <= r; c++)
        res = res*num;
    return res;
}
```

input

ARMSTRONG NUMBER USING RECURSIONInput number to check Armstrong or not: 153
153 is an Armstrong number.

f y + 171K

main.c

```c
#include<stdio.h>
#define MAX 100
int getMaxElement(int []);
int size;
int main()
{
    int arr[MAX], max, i;
    printf("USING RECURSION\n");
    printf("Enter the size of the array: ");
    scanf("%d", &size);
    printf("Enter %d elements\n", size);
    for(i = 0; i < size; i++)
    {
        scanf("%d", &arr[i]);
    }
    max = getMaxElement(arr);
    printf("Largest element of the array is %d\n", max);
    return 0;
}
int getMaxElement(int a[])
{
    static int i = 0, max =- 9999;
    if(i < size)
    {
        if(max < a[i])
        max = a[i];
        i++;
        getMaxElement(a);
```

input

```
USING RECURSION
Enter the size of the array: 4
Enter 4 elements
54
89
65
33
Largest element of the array is 89
```

```c
#include <stdio.h>
int main() {
    int n;
    double arr[100];
    printf("NON RECURSIVE ");
    printf("\nEnter the number of elements (1 to 100): ");
    scanf("%d", &n);
    for (int i = 0; i < n; ++i)
    {
        printf("Enter number%d: ", i + 1);
        scanf("%lf", &arr[i]);
    }
    for (int i = 1; i < n; ++i)
    {
        if (arr[0] < arr[i])
        {
            arr[0] = arr[i];
        }
    }
    printf("Largest element = %.2lf", arr[0]);
    return 0;
}
```

input

```
NON RECURSIVE
Enter the number of elements (1 to 100): 5
Enter number1: 23
Enter number2: 54
Enter number3: 44
Enter number4: 77
Enter number5: 98
Largest element = 98.00
```

Run   Debug   Stop   Share   Save   {} Beautify

main.c

```c
void printFibonacci(int n)
{
    static int n1=0,n2=1,n3;
    if(n>0){
        n3 = n1 + n2;
        n1 = n2;
        n2 = n3;
        printf("%d ",n3);
        printFibonacci(n-1);
    }
}
int main()
{
    int n;
    printf("USING RECURSION");
    printf("\nEnter the number of elements: ");
    scanf("%d",&n);
    printf("Fibonacci Series: ");
    printf("%d %d ",0,1);
    printFibonacci(n-2);
    return 0;
}
```

```
USING RECURSION
Enter the number of elements: 8
Fibonacci Series: 0 1 1 2 3 5 8 13

...Program finished with exit code 0
Press ENTER to exit console.
```

OnlineGDB beta
piler and debugger for
c/c++

mpile. run. debug.
share.

IDE

My Projects

ssroom new

n Programming

mming Questions

Sign Up

Login

AQ • Blog • Terms of Use
act Us • GDB Tutorial •
Credits • Privacy

▶ Run   ⊙ Debug   ■ Stop   ☪ Share   💾 Save   {} Beautify

main.c

Language C

```c
1   #include<stdio.h>
2   int main()
3   {
4     int n1=0,n2=1,n3,i,num;
5     printf("Enter the number of elements:");
6     scanf("%d",&num);
7     printf("\n%d %d",n1,n2);
8     for(i=2;i<num;++i)
9     {
10      n3=n1+n2;
11      printf(" %d",n3);
12      n1=n2;
13      n2=n3;
14    }
15    return 0;
16  }
17
```

input

Enter the number of elements:9

0 1 1 2 3 5 8 13 21

...Program finished with exit code 0
Press ENTER to exit console.