Answer on Question#37470 - Programming, C++

1. Exercise 3: Prime numbers
   Write a program that prompts the user to enter two positive integers m and n where m < n then output all prime numbers in the range m and n, inclusive. You must write a function that would test a number whether it is prime.

Solution.

```
#include <iostream>
#include <stdio.h>
#include <malloc.h>

using namespace std;

int isSimple(int n)
{
        if(n == 1 || n<=0)
                return 0;
    for(int i=2; i<=n/2; ++i)
       if(n%i == 0)
           return 0;
    return 1;
}

int main(int argc, char * argv[])
{


    int N,M;
    int* Arr;
       printf("Enter M: ");
       scanf("%d", &M);
    printf("Enter N: ");
    scanf("%d", &N);
    Arr=(int*) malloc(N*sizeof(int));
       int j=0;
    for(int i=M; i<N; ++i,j++)
       {
        Arr[j]=i;
       }
    int simple_cnt=0;
       printf("number of primes:\n");
    for(int i=0; i<j; ++i)
    {
        if(isSimple(Arr[i])==1)
        {
           printf("%d ", Arr[i]);
           ++simple_cnt;
        }
     }
     printf("\nThe number of prime numbers in the sequence: %d\n", simple_cnt);
     free(Arr);


       system("pause");
       return 0;
}
```