- **Fundamental of Programming**
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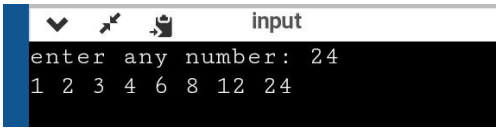
- **CMS: 461603**
- **Sec: ME-15(B)**
- **Assignment #01**

Task#01

```
//factor of a number:
#include <iostream>

using namespace std;

int main()
{
   int a,res,i;
   cout<<"enter any number: ";
   cin>>a;
   for(int i=1;i<=a;++i){
   if(a%i==0){
     cout<<i<<" ";

   }

   }
   return 0;
}
```

Result:



Task#02

Output:

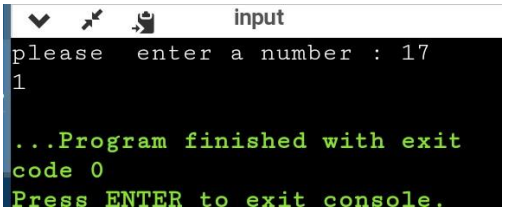
x is 5 and y is 10

Task#03

```
//cheak number greater than 10 &less than equal to 20:
#include <iostream>

using namespace std;

int main()
{
  int n;
  cout<<"please  enter a number : ";
  cin>>n;
  if(n>10 && n<=20){
     cout<<1;
  }
  else{
     cout<<0;
```

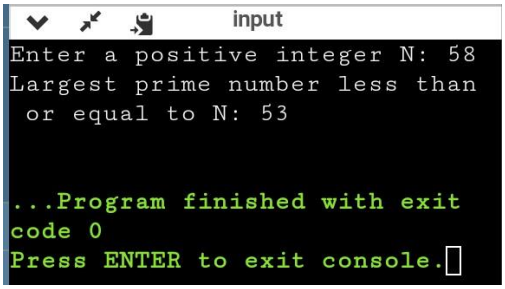
```
  }
   return 0;
}
```

Result:



Task#04

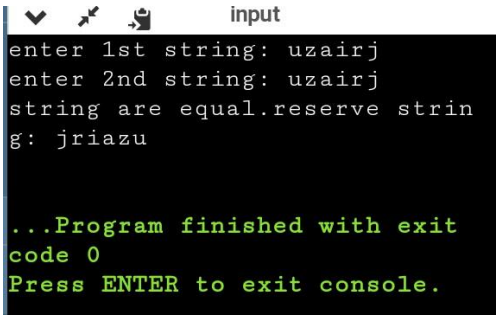
```
#include <iostream>
using namespace std;
bool isPrime(int num) {
    if (num <= 1) {
        return false;
    }
    for (int i = 2; i * i <= num; ++i) {
        if (num % i == 0) {
            return false;
        }
    }
    return true;
}

int main() {
    int N;

    // Take input from the user
    cout << "Enter a positive integer N: ";
   cin >> N;

    // Find the largest prime number less than or equal to N using a while loop
    while (N > 0) {
        if (isPrime(N)) {
            cout << "Largest prime number less than or equal to N: " << N <<
endl;
            break;
        }
        --N;
    }

    return 0;
}
```



Task#05

```
#include <iostream>
#include <string>
using namespace std;

int main()
{
  string s1,s2,reserve;
  reserve="";
  cout<<"enter 1st string: ";
  cin>>s1;
  cout<<"enter 2nd string: ";
  cin>>s2;
   if(s1==s2){
      for(int i=0;i<s1.length();i++){
      reserve=s1[i]+reserve;}
      cout<<"string are equal.reserve string: ";
      cout<<reserve<<endl;
      }
  else{
      cout<<"strings are not equal.";
  }
   return 0;
}
```

Result:

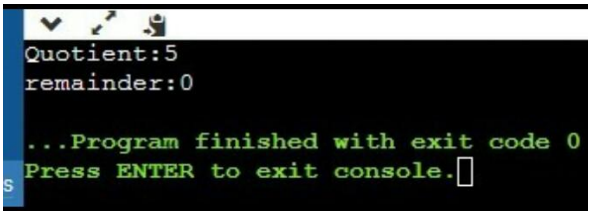


Task#06

```
#include <iostream>

using namespace std;

int main()
{
```

```
  int dividend=20;
  int divisor=4;
  int quotient=0;
  while(dividend>=divisor){
     dividend-=divisor;
     quotient++;
  }
  cout<<"Quotient:"<<quotient<<endl;
  cout<<"remainder:"<<dividend;
   return 0;
}
```

Result:

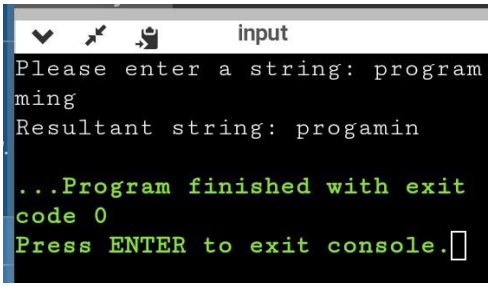


Task#07

```
#include <iostream>

#include<string.h>

using namespace std;

int main(){

string str,res="";

cout<<"Please enter a string: ";

getline(cin,str);

int i,j

;for( i=0;i<str.length();i++){

for( j=0;j<str.length();j++){

if(str[i]==str[j]){

break;

}

}

if(i==j){
```

```
res=res+str[i];



}

}

cout<<"Resultant string: "<<res;



}
```

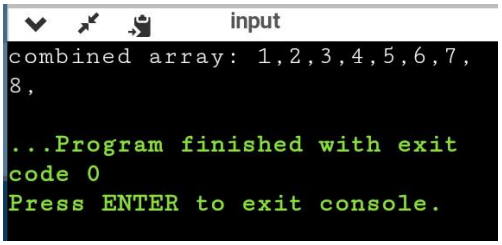
Result:



Task#08

```
#include <iostream>

using namespace std;

int main()
{
  int a[5]={1,2,3,4,5};
  int b[3]={6,7,8};
  int newarray[8];
  for(int i=0;i<5;++i){
      newarray[i]=a[i];
  }
  for(int i=5;i<8;++i){
      newarray[i]=b[i-5];
  }
  cout<<"combined array: ";
  for(int i=0;i<8;++i){
      cout<<newarray[i]<<",";
  }
 return 0;
}
```

Result:



Task#09

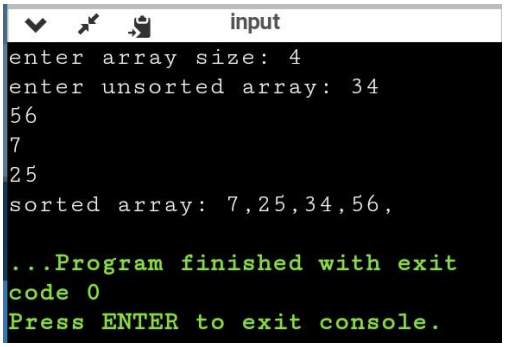
```
//triplet sum of number:
#include <iostream>

using namespace std;

int main()
{
  int n,sum,find=0;
   cout<<"enter number of element of array :\n ";
   cin>>n;
   cout<<"enter sum: ";
   cin>>sum;
   int arr[n],i,j,k,c;
   for(i=0;i<n;i++){
    cin>>arr[i];
   }
   for(int i=0;i<n;i++){
      for(int j=i+1;j<n;j++){
      for(int k=j+1;k<n;k++){
      c=arr[i]+arr[j]+arr[k];
      if(sum==c){
                cout<<"("<<arr[i]<<","<<arr[j]<<","<<arr[k]<<")";
    find=1;
    }
      }
       }
      } if(find==0){

         cout<<"no triplet sum ";
      }
return 0;
  }
```

Result:

Task#10

```
#include <iostream>

using namespace std;

int main()
{
   int i,n,temp;
   cout<<"enter array size: ";
   cin>>n;
   int  arr[n];
   cout<<"enter unsorted array: ";
   for(int i=0;i<n;i++){
   cin>>arr[i];
   }
   for(int i=0;i<n;i++){
      for(int j=0;j<n-1;j++){
         if(arr[j]>arr[i]){
            temp=arr[i];
            arr[i]=arr[j];
            arr[j]=temp;
         }
      }
   }
   cout<<"sorted array: ";
   for(int i=0;i<n;i++){
      cout<<arr[i]<<",";
   }
   return 0;
}
```

Result:


input
enter array size: 4
enter unsorted array: 34
56
7
25
sorted array: 7,25,34,56,
...Program finished with exit
code 0
Press ENTER to exit console.

The End