ASSIGNMENT:01

FUNDAMENTAL OF PROGRAMMING

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ME-15 A

ASSIGNMENT:

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QUESTION:01

```cpp
#include<iostream>
#include<cmath>
#include<string>
using namespace std;
int main()
{
    //task:01

    int n;
    cout<<"enter num n"<<endl;
    cin>>n;
    cout<<"factors are:"<<endl;
    for(int i=1;i<=n;i++){
        if(n%i==0){
        cout<<i<<", ";

    }else{
    continue;
    }
}


}
```

```
enter num n
8
factors are:
1, 2, 4, 8,
--------------------------------
Process exited after 1.685 seconds with return value 0
Press any key to continue . . .
```

QUESTION:02

The output of the given program is

X is 5 and y is 10

QUESTION:03

```
// task :03



int num;
cout<<" enter a number"<<endl;
cin>>num;

int result;
result=(num>10&&num<20 )? 1:0;

cout<<" answer is  "<<result;
```

```
 enter a number
15
 answer is  1
--------------------------------
Process exited after 7.562 seconds with return value 0
Press any key to continue . . .
```

QUESTION:04

```
// TASK:04

 int n, num1, maxprime;

 cout<<"Enter a positive number"<<endl;
 cin>>n;

if ( n<= 1 ) {
cout<<"Please enter a positive integer greater than 1"<<endl;
return 1;
}
num1 = n;

 while ( num1>1) {
int i;
for ( i=2; i<= num1/2; i++) {

    if (num1 % i == 0 ) {
        break;
    }   }
if ( i>num1 / 2 ) {
    maxprime = num1;
    break;
}
num1--;
}
 cout<<"The largest prime number near to  "<<n<<" is: "<<maxprime;

 }
```

```
Enter a positive number
67
The largest prime number near to  67 is: 67
--------------------------------
Process exited after 4.449 seconds with return value 0
Press any key to continue . . .
```

QUESTION:05

```
    //TASK:05


    string m;
    string n;

    cout<<"enter your strings m and n"<<endl;
    cin>>m>>n;

    int z;
    z=n.length();

    if(m==n){
    cout<<"string are equal"<<endl;
    for(int i=z;i>=0;--i){
    cout<<m[i];
    }
    }
    else{
        cout<<"both strings are notsd equal  "<<endl;

    }}
```

```
G:\PROGRAMMING\PROGRAMS\practice assignment.exe
enter your strings m and n
talha
talha
string are equal
 ahlat
--------------------------------
Process exited after 11.72 seconds with return value 0
Press any key to continue . . .
```

QUESTION:06

```
    double divident, divisor, remainder, answer;
   int quotient=0;

  cout<<"Enter  divident"<<endl;
   cin>>divident;
  cout<<endl<<"Enter divisor"<<endl;
  cin>>divisor;

   if ( divident < divisor || divisor == 0 ) {
    cout<<"Invalalid , divident should be greator then divisor  "<<endl;;
}
   else {
     int i;
    for ( int i = divisor; i <= divident; i = i + divisor ) {
    quotient++;
}
    cout<<"quotient = "<<quotient<<endl;

   remainder = fmod( divident, divisor );

   cout<<"remainder = "<<remainder<<endl;

   answer = quotient + remainder / divisor;
    cout<<divident<<" / "<<divisor<<" = "<<answer;
```

```
Enter  divident
65

Enter divisor
3
quotient = 21
remainder = 2
65 / 3 = 21.6667
--------------------------------
Process exited after 8.141 seconds with return value 0
Press any key to continue . . .
```

QUESTION:07

```
string letter, uletter;
int len, count, count2;

cout<<"Please Enter your string : "<<endl;;
cin>>letter;
uletter=letter;

for(count=0; count<letter.length(); count++){
  tolower(letter[count]);

 for(count2=count+1; count2<=letter.length(); count2++ ){
    if(letter[count]==letter[count2]){
      letter[count]=' ';
      letter[count2]=' ';
    }
 }  }
    uletter="";
    for(count=0; count<letter.length(); count++){
        if(isspace(letter[count])){

    continue;}
else{
    uletter += letter[count];
}}
cout<<"our new string is: "<<uletter<<endl;
}
```

```
Please Enter your string :
grasshopper
New Word is: gahoe

--------------------------------
Process exited after 12.54 seconds with return value 0
Press any key to continue . . .
```

QUESTION:08

```
  //task:08

    int n = 5, m;
 int k = n;
int a[n]={1,2,3,4,5};
cout<<"How many  elements more you want in the integer array of a[5]"<<endl;
cin>>m;
n = m + 5;
cout<<"Please enter the elements you want to add "<<endl;

 for(int i=k; i<n; i++)
{
    cin>>a[i];
}
for(int i=0; i<n; i++)
{
    cout<<a[i]<<' ';
}
```

```
How many  elements more you want in the integer array of a[5]
4
Please enter the elements you want to add
8
14
35
112
1 2 3 4 5 8 14 35 112
--------------------------------
Process exited after 20.63 seconds with return value 0
Press any key to continue . . .
```

QUESTION:09

```cpp
//task 9

    int a[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15};
    int n = 14;

    int X;
    cout << "Enter integer x "<<endl;
    cin >> X;

    int tripletFound = 0; // 0 represents false, 1 represents true

    for (int i = 0; i < n - 2; i++) {
    for (int j = i + 1; j < n - 1; j++) {
     for (int k = j + 1; k < n; k++) {
     if (a[i] + a[j] + a[k] == X)
     {
        cout << "Triplet found: " << a[i] << ", " << a[j] << ", " << a[k] << endl;
         tripletFound = 1;
    }
      } }}

    if (!tripletFound) {
        cout << "No triplet found." << endl;
    }
```

```
Enter integer x
36
Triplet found: 9, 13, 14
Triplet found: 10, 12, 14
Triplet found: 11, 12, 13

--------------------------------
Process exited after 5.465 seconds with return value 0
Press any key to continue . . .
```

QUESTION:10

```
    int r;
cout<<"Enter 6 numbers "<<endl;

int a[6];

for (int i = 0; i < 6; i++) {
    cin>>a[i];
    }

     for (int i = 0; i<5; i++) {
    for (int j=i+1; j<6; j++) {

        if ( a[i] > a[j] ) {
            r = a[i];
            a[i] = a[j];
            a[j] = r;
        }
    }}

    for ( int i = 0; i<6; i++ ) {
    cout<<a[i]<<"  ";
    }
```

```
Enter 6 numbers
87
45
2
114
5
18
2  5  18  45  87  114
--------------------------------
Process exited after 22.02 seconds with return value 0
Press any key to continue . . .
```