




C++ ASSIGNMENT 1.1

1. Write a program to print "Hello World" on the screen.

Code

```
#include
using namespace std;
int main()
{
    cout<<"Hello World";
    return 0;
}
```

Output:--

main.cpp	  	Output
<pre>1 #include<iostream> 2 using namespace std; 3 int main() 4 { 5 cout<<"Hello World"; 6 return 0; 7 }</pre>		<pre>/tmp/TIbtdljhJv.o Hello World</pre>

2. Write a program that generate the following output




10, 20, 19

Use an integer constant for 10, an arithmetic C++ ASSIGNMENT operator to generate the 20, and a decrement operator to generate 19.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int a,b,c;
    a = 10;
    b = a*2;
    c = b--;
    cout << a<<" "<<c<<" "<<b ;
    return 0;
}
```

Output:--

main.cpp	  	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 int a,b,c; 6 a = 10; 7 b = a*2; 8 c = b--; 9 cout << a<<" "<<c<<" "<<b ; 10 return 0; 11 } 12</pre>		<pre>/tmp/TIbtdljhJv.o 10 20 19</pre>

3. Write a program that asks the user to enter a radius value and then compute the volume of a sphere with the input radius.

Code –

```
#include <iostream>
using namespace std;
int main()
{
    double r,v;
    cout << "Enter Radius of Sphere = ";
    cin >> r;
    v = (4.0/3.0) * (22.0/7.0) * (r*r*r);
    cout << "Volume of Sphere = " << v;
    return 0;
}
```

Output :--

<pre>main.cpp 1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 double r,v; 6 cout << "Enter Radius of Sphere = "; 7 cin >> r; 8 v = (4.0/3.0) * (22.0/7.0) * (r*r*r); 9 cout << "Volume of Sphere = " << v; 10 return 0; 11 } 12</pre>	<div>Output</div> <div>/tmp/TIbtdljhJv.o Enter Radius of Sphere = 5 Volume of Sphere = 523.81</div>
--	---

4. Write a program that takes three input of sides of a triangle. The program should indicate whether the triangle would be formed or not. If it can be formed it also indicates the type.

Code:--

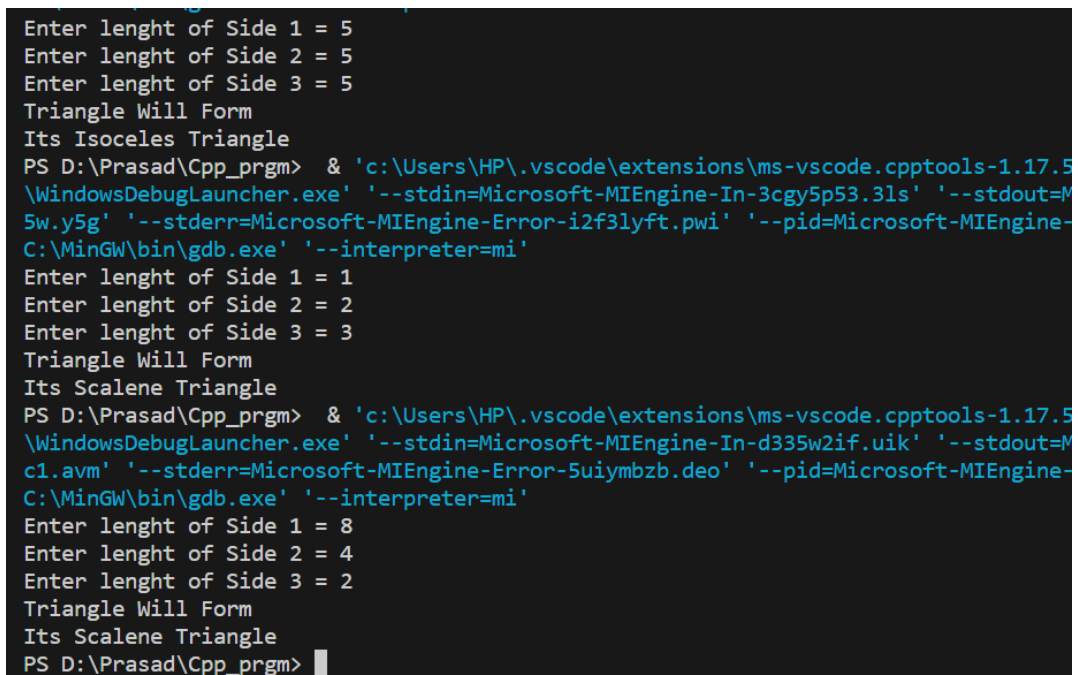
```
#include <iostream>
using namespace std;
int main()
{
    double s1,s2,s3;
    cout << "Enter lenght of Side 1 = ";
    cin >> s1;
    cout << "Enter lenght of Side 2 = ";
    cin >> s2;
    cout << "Enter lenght of Side 3 = ";
    cin >> s3;
    if(((s1+s2)>s3) || ((s2+s3)>s1) || ((s1+s3)>s2))
    {
        cout << "Triangle Will Form" << "\n";
        if(s1==s2==s3)
        {
            cout << "Its Equilateral Triangle";
        }
    }
}
```

```

else
if((s1==s2)||(s2==s3)||(s3==s1))
{
cout << "Its Isoceles Triangle";
}
else
if((s1!=s2)||(s2!=s3)||(s3!=s1))
{
cout << "Its Scalene Triangle";
}
}
else
{
cout << "Triangle Will not Form";
}
return 0;
}

```

Output :--



```

Enter lenght of Side 1 = 5
Enter lenght of Side 2 = 5
Enter lenght of Side 3 = 5
Triangle Will Form
Its Isoceles Triangle
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-3cgy5p53.3ls' '--stdout=Microsoft-MIEngine-Output-3cgy5p53.3ls' '--stderr=Microsoft-MIEngine-Error-i2f3lyft.pwi' '--pid=Microsoft-MIEngine-Process-3cgy5p53.3ls' '--interpreter=mi'
Enter lenght of Side 1 = 1
Enter lenght of Side 2 = 2
Enter lenght of Side 3 = 3
Triangle Will Form
Its Scalene Triangle
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-d335w2if.uik' '--stdout=Microsoft-MIEngine-Output-d335w2if.uik' '--stderr=Microsoft-MIEngine-Error-5uiymbzb.deo' '--pid=Microsoft-MIEngine-Process-d335w2if.uik' '--interpreter=mi'
Enter lenght of Side 1 = 8
Enter lenght of Side 2 = 4
Enter lenght of Side 3 = 2
Triangle Will Form
Its Scalene Triangle
PS D:\Prasad\Cpp_prgm>

```

5. Write a program that takes one input as number and it will display whether the number is +ve, -ve or zero. If the number is +ve, then it will display whether the number is odd or even.

Code :--

```

#include <iostream>
using namespace std;
int main()
{
int a;
cout << "Enter Number = ";
cin >> a;
if(a>0)
{

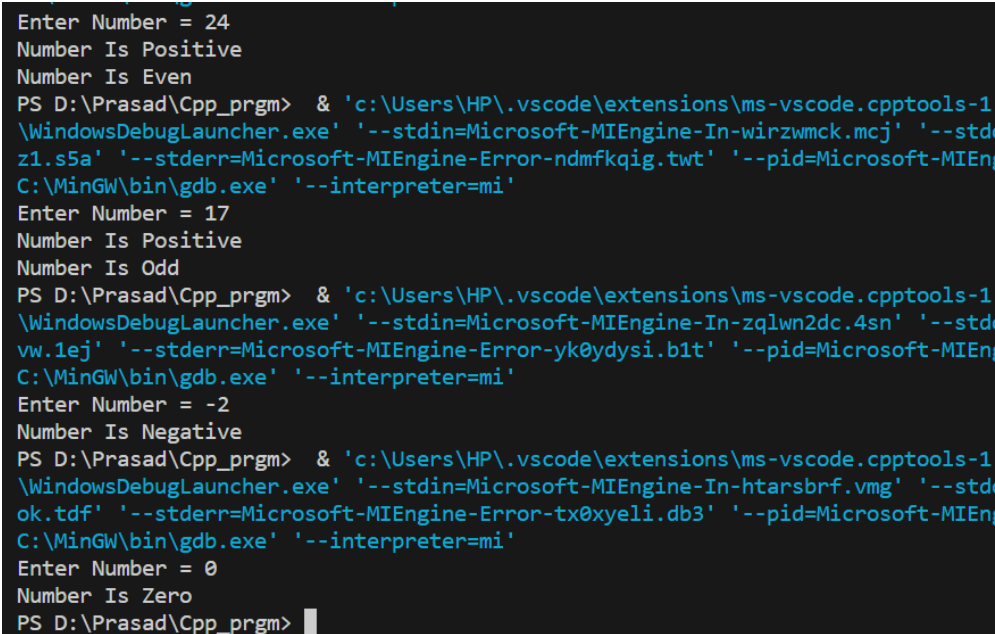
```

```

cout << "Number Is Positive" << "\n";
{
if((a%2)==0)
cout << "Number Is Even";
else
cout << "Number Is Odd";
}
}
else
if(a<0)
{
cout << "Number Is Negative";
}
else
if(a==0)
{
cout << "Number Is Zero";
}
return 0;
}

```

Output:--



```

Enter Number = 24
Number Is Positive
Number Is Even
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-wirzwmck.mcj' '--std
z1.s5a' '--stderr=Microsoft-MIEngine-Error-ndmfkqig.twt' '--pid=Microsoft-MIEn
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number = 17
Number Is Positive
Number Is Odd
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-zqlwn2dc.4sn' '--std
vw.1ej' '--stderr=Microsoft-MIEngine-Error-yk0ydysi.b1t' '--pid=Microsoft-MIEn
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number = -2
Number Is Negative
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-htarsbrf.vmg' '--std
ok.tdf' '--stderr=Microsoft-MIEngine-Error-tx0xyeli.db3' '--pid=Microsoft-MIEn
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number = 0
Number Is Zero
PS D:\Prasad\Cpp_prgm>

```

6. Write a program which takes username as input and it greets to user with his name.

Code:--

```

#include <iostream>
using namespace std;
int main()
{
string n ;
cout << "Enter Your Name = ";
cin >> n;
cout<<"Hello " <<n ;
return 0;
}

```

Output:--

main.cpp	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 string n ; 6 cout << "Enter Your Name = "; 7 cin >> n; 8 cout<<"Hello "<<n ; 9 return 0; 10 }</pre>	<pre>/tmp/BRUyw6oHRI.o Enter Your Name = Prasad Hello Prasad</pre>

7. Write a program, which takes two integer numbers as input and it shows their exchanged value. (Don't use third variable)

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int a,b;
    cout << "Enter Number Value of A = ";
    cin >> a;
    cout << "Enter Number Value of B = ";
    cin >> b;
    cout << " Value of A = "<< b << "\n";
    cout << " Value of B = "<< a << "\n";
    return 0;
}
```

Output:--

main.cpp	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 int a,b; 6 cout << "Enter Number Value of A = "; 7 cin >> a; 8 cout << "Enter Number Value of B = "; 9 cin >> b; 10 cout << " Value of A = "<< b << "\n"; 11 cout << " Value of B = "<< a << "\n"; 12 return 0; 13 }</pre>	<pre>/tmp/BRUyw6oHRI.o Enter Number Value of A = 4 Enter Number Value of B = 2 Value of A = 2 Value of B = 4</pre>

8. WAP to check Leap Year.

Code:--

```
#include <iostream>
using namespace std;
int main()
```

```

{
int a,b;
cout << "Enter Year = ";
cin >> a;
if((a%4)==00)
{
if((a%100)==00)
{
if((a%400)==00)
{
cout << " This is Leap Year";
}
else
{
cout << " This is Not Leap Year";
}
}
else
{
cout << " This is Leap Year";
}
}
else
{
cout << " This is Not Leap Year";
}
}
return 0;
}

```

Output:--

```

PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-j45tp444.lez' '--s
am.qys' '--stderr=Microsoft-MIEngine-Error-0c2kztpo.s0z' '--pid=Microsoft-MI
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Year = 2000
    This is Leap Year
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-zyn14aj3.zls' '--s
zr.t5u' '--stderr=Microsoft-MIEngine-Error-xfqzdebv.vx0' '--pid=Microsoft-MI
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Year = 2018
    This is Not Leap Year
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-2n1gp2jk.fea' '--s
2a.44i' '--stderr=Microsoft-MIEngine-Error-drjczbvz.4q0' '--pid=Microsoft-MI
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Year = 2024
    This is Leap Year
PS D:\Prasad\Cpp_prgm> █

```

9.WAP for finding remainder of division of 2 numbers.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int a,b,c;
    cout << "Enter Number 1 = ";
    cin >> a;
    cout << "Enter Number 2 = ";
    cin >> b;
    c = a%b;
    cout<< "Reminder is = " << c;
    return 0;
}
```

Output:--

main.cpp	Run	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 int a,b,c; 6 cout << "Enter Number 1 = "; 7 cin >> a; 8 cout << "Enter Number 2 = "; 9 cin >> b; 10 c = a%b; 11 cout<< "Reminder is = " << c; 12 return 0; 13 } 14 </pre>		<pre>/tmp/BRUyw6oHRI.o Enter Number 1 = 25 Enter Number 2 = 3 Reminder is = 1</pre>

10.WAP to calculate Area of Rectangle.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int l,w,a;
    cout << "Enter Length = ";
    cin >> l;
    cout << "Enter Width = ";
    cin >> w;
    a = l*w;
    cout << "Area of Rectangle = " << a;
    return 0;
}
```

Output:--

main.cpp	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 int l,w,a; 6 cout << "Enter Length = "; 7 cin >> l; 8 cout << "Enter Width = "; 9 cin >> w; 10 a = l*w; 11 cout << "Area of Rectangle = " << a; 12 return 0; 13 }</pre>	<pre>/tmp/BRUyw6oHRI.o Enter Length = 24 Enter Width = 15 Area of Rectangle = 360</pre>

11.WAP to calculate Area of Square.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int l,a;
    cout << "Enter Length of Side = ";
    cin >> l;
    a = (l*l);
    cout << "Area of Square = " << a;
    return 0;
}
```

Output:--

main.cpp	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 int l,a; 6 cout << "Enter Length of Side = "; 7 cin >> l; 8 a = (l*l); 9 cout << "Area of Square = " << a; 10 return 0; 11 } 12</pre>	<pre>/tmp/9YvC9jafxw.o Enter Length of Side = 24 Area of Square = 576</pre>

12.WAP to calculate the area of Triangle.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    double b,h,a;
```



```

cout << "Enter Length of Base = ";
cin >> b;
cout << "Enter Length of Height = ";
cin >> h;
a = (1.0/2.0)*b*h;
cout << "Area of Triangle = " << a;
return 0;
}

```

Output:--

main.cpp	Output
<pre> 1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 double b,h,a; 6 cout << "Enter Length of Base = "; 7 cin >> b; 8 cout << "Enter Length of Height = "; 9 cin >> h; 10 a = (1.0/2.0)*b*h; 11 cout << "Area of Triangle = " << a; 12 return 0; 13 } 14 </pre>	<pre> /tmp/9YvC9jafxw.o Enter Length of Base = 12 Enter Length of Height = 20 Area of Triangle = 120 </pre>

13.WAP to calculate Area and Circumference of Circle.

Code:--

```

#include <iostream>
using namespace std;
int main()
{
    double r,a,c;
    cout << "Enter Radius = ";
    cin >> r;
    a = (22.0/7.0)*(r*r);
    c = (2.0)*(22.0/7.0)*r;
    cout << "Area of Circle = " << a << "\n";
    cout << "Circumference of Circle = " << c ;
    return 0;
}

```

Output:--

main.cpp	Output
<pre> 1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 double r,a,c; 6 cout << "Enter Radius = "; 7 cin >> r; 8 a = (22.0/7.0)*(r*r); 9 c = (2.0)*(22.0/7.0)*r; 10 cout << "Area of Circle = " << a << "\n"; 11 cout << "Circumference of Circle = " << c ; 12 return 0; 13 } </pre>	<pre> /tmp/9YvC9jafxw.o Enter Radius = 12 Area of Circle = 452.571 Circumference of Circle = 75.4286 </pre>

14.WAP for two item's weight (floating points' values) and number of purchase (floating points' values) and calculate the average value of the items.

Test Data:

Weight - Item1: 15

No. of item1: 5

Weight - Item2: 25

No. of item2: 4

Expected Output:

Average Value = 19.444444

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    float w1,w2,n1,n2,avg;
    cout << "Weight of Item NO 1 = ";
    cin >> w1;
    cout << "Number of Item NO 1 = ";
    cin >> n1;
    cout << "Weight of Item NO 2 = ";
    cin >> w2;
    cout << "Number of Item NO 2 = ";
    cin >> n2;
    avg = (((w1*n1)+(w2*n2))/(n1+n2));
    cout << "Average value of the items = " << avg ;
    return 0;
}
```

Output:--

main.cpp	Run	Output
<pre>1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 float w1,w2,n1,n2,avg; 6 cout << "Weight of Item NO 1 = "; 7 cin >> w1; 8 cout << "Number of Item NO 1 = "; 9 cin >> n1; 10 cout << "Weight of Item NO 2 = "; 11 cin >> w2; 12 cout << "Number of Item NO 2 = "; 13 cin >> n2; 14 avg = (((w1*n1)+(w2*n2))/(n1+n2)); 15 cout << "Average value of the items = " << avg ; 16 return 0; 17 } 18</pre>		<pre>/tmp/3qF1PNjVXF.o Weight of Item NO 1 = 15 Number of Item NO 1 = 5 Weight of Item NO 2 = 25 Number of Item NO 2 = 4 Average value of the items = 19.4444</pre>

15.WAP to calculate a bike's average consumption from the given total distance (integer value) travelled (in km) and spent fuel.

Test Data:

Input total distance in km: 350

Input total fuel spent in litres: 5

Expected Output:

Average consumption (km/Lit) 70.00

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    float a,b,cons;
    cout << "Input Total Distance (Km)= ";
    cin >> a;
    cout << "Input Total Fuel (Lit)= ";
    cin >> b;
    cons = a/b;
    cout << "Average Consumption (Km/Lit)= " << cons;
    return 0;
}
```

Output:--

<pre>main.cpp 1 #include <iostream> 2 using namespace std; 3 int main() 4 { 5 float a,b,cons; 6 cout << "Input Total Distance (Km)= "; 7 cin >> a; 8 cout << "Input Total Fuel (Lit)= "; 9 cin >> b; 10 cons = a/b; 11 cout << "Average Consumption (Km/Lit)= " << cons; 12 return 0; 13 } 14</pre>	<div>Run</div> <div>Output</div> <pre>/tmp/3qF1PNjVXF.o Input Total Distance (Km)= 350 Input Total Fuel (Lit)= 5 Average Consumption (Km/Lit)= 70</pre>
--	---

16. Write a program that will give the grade of the student based on the percentage he got in the course.

Use the following criteria for assigning grades:

Grade = A (when percentage \geq 60)

Grade = B (when percentage \geq 50 and percentage $<$ 60)

Grade = C (when percentage \geq 40 and percentage $<$ 50)

Grade = D (when percentage \geq 30 and percentage $<$ 40)

Grade = E (when percentage \geq 20 and percentage $<$ 30)

Code:--

```
#include <iostream>
using namespace std;
int main()
{
```

```

double p;
char g;
cout << "Enter Percentange = ";
cin >> p;
if(p>=60)
{
    g = 'A';
    cout<<"Grade " << g;
}
else
if((p>=50)&&(p<60))
{
    g = 'B';
    cout<<"Grade " << g;
}
else
if((p>=40)&&(p<50))
{
    g = 'C';
    cout<<"Grade " << g;
}
else
if((p>=30)&&(p<40))
{
    g = 'D';
    cout<<"Grade " << g;
}
else
if((p>=20)&&(p<30))
{
    g = 'E';
    cout<<"Grade " << g;
}
return 0;
}

```

Output:--

```

PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.c
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-pza221ta.dd
45.4pp' '--stderr=Microsoft-MIEngine-Error-txdaq013.rgq' '--pid=Micro
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Percentange = 95
Grade A
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.c
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-m1u01ott.q0
n0.e0z' '--stderr=Microsoft-MIEngine-Error-1slx0fxx.gqu' '--pid=Micro
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Percentange = 58
Grade B
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.c
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-uj51lw5f.me
js.fvs' '--stderr=Microsoft-MIEngine-Error-5ndqfwkg.ejm' '--pid=Micro
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Percentange = 44
Grade C
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.c
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-rq5p5nn2.kg
4e.mwj' '--stderr=Microsoft-MIEngine-Error-lp23sm1w.0wj' '--pid=Micro
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Percentange = 35
Grade D
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.c
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-hikswtej.2a
op.ium' '--stderr=Microsoft-MIEngine-Error-ccq3ws3x.ilu' '--pid=Micro
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Percentange = 25
Grade E
PS D:\Prasad\Cpp_prgm> █

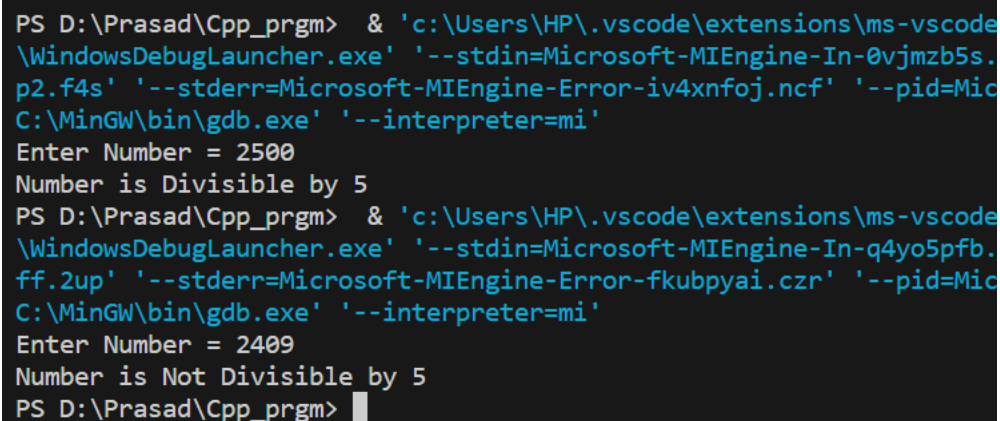
```

17.WAP to check whether a number is divisible by 5.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int a,b;
    cout << "Enter Number = ";
    cin >> a;
    if((a%5)==0)
    {
        cout<<"Number is Divisible by 5";
    }
    else
    {
        cout<<"Number is Not Divisible by 5";
    }
    return 0;
}
```

Output:--



```
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-0vjmzb5s.
p2.f4s' '--stderr=Microsoft-MIEngine-Error-iv4xnfoj.ncf' '--pid=Mic
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number = 2500
Number is Divisible by 5
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-q4yo5pfb.
ff.2up' '--stderr=Microsoft-MIEngine-Error-fkubpyai.czh' '--pid=Mic
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number = 2409
Number is Not Divisible by 5
PS D:\Prasad\Cpp_prgm> █
```

18.WAP to input basic salary of an employee and calculate its Gross salary according to following:

Basic Salary <= 10000 : HRA = 20%, DA = 80%

Basic Salary <= 20000 : HRA = 25%, DA = 90%

Basic Salary > 20000 : HRA = 30%, DA = 95%

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    float BSal ,HRA ,DA ,GrossSal;
    cout << "Enter Basic Salary of Employee = ";
    cin >> BSal ;
    if(BSal<=10000)
```

```

{
HRA = BSaI*0.2;
DA = BSaI*0.8;
GrossSal = BSaI + HRA + DA ;
cout << "Gross Salary of Empolyee is = " << GrossSal ;
}
else
if((BSaI<=20000)&&(BSaI>10000))
{
HRA = BSaI*0.25;
DA = BSaI*0.9;
GrossSal = BSaI + HRA + DA ;
cout << "Gross Salary of Empolyee is = " << GrossSal ;
}
else
if(BSaI>20000)
{
HRA = BSaI*0.3;
DA = BSaI*0.95;
GrossSal = BSaI + HRA + DA ;
cout << "Gross Salary of Empolyee is = " << GrossSal ;
}
return 0;
}

```

Output:--

```

Enter Basic Salary of Employee = 35000
Gross Salary of Empolyee is = 78750
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.1\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-sveqald5.pk3' '--stdout=t31' '--stderr=Microsoft-MIEngine-Error-jaoir01v.41h' '--pid=Microsoft-MIEngine-1000' 'C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Basic Salary of Employee = 25000
Gross Salary of Empolyee is = 56250
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.1\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-tldg1ilg.qaf' '--stdout=3a.uoo' '--stderr=Microsoft-MIEngine-Error-5slctl5.2kd' '--pid=Microsoft-MIEngine-1000' 'C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Basic Salary of Employee = 15000
Gross Salary of Empolyee is = 32250
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.1\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-gvfoberg.o0f' '--stdout=pp.05k' '--stderr=Microsoft-MIEngine-Error-2oo0wqgn.mwk' '--pid=Microsoft-MIEngine-1000' 'C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Basic Salary of Employee = 8000
Gross Salary of Empolyee is = 16000
PS D:\Prasad\Cpp_prgm> █

```

19.WAP to input electricity unit charges and calculate total electricity bill according to the given condition:

For first 50 units Rs. 0.50/unit

For next 100 units Rs. 0.75/unit

For next 100 units Rs. 1.20/unit

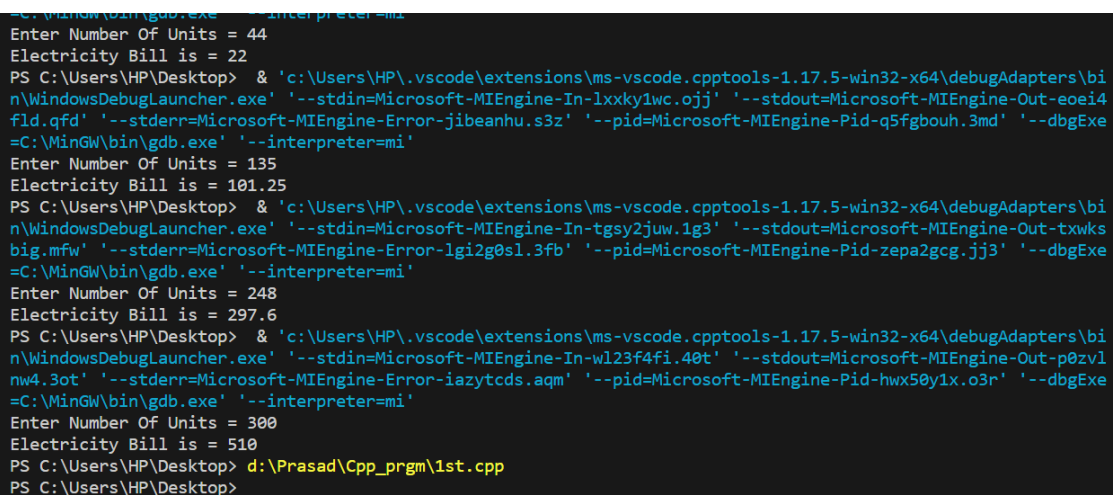
For unit above 250 Rs. 1.50/unit

An additional surcharge of 20% is added to the bill

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    float a,b;
    cout << "Enter Number Of Units = ";
    cin >> a;
    if (a<=50)
    {
        b = (0.50*a);
        cout << "Electricity Bill is = " << b ;
    }
    else
    if ((a>50)&&(a<=150))
    {
        b = (0.75*a);
        cout << "Electricity Bill is = " << b;
    }
    else
    if ((a>150)&&(a<=250))
    {
        b = (1.20*a);
        cout << "Electricity Bill is = " << b;
    }
    else
    if (a>250)
    {
        b = (1.50*a)+ (0.20*a);
        cout << "Electricity Bill is = " << b;
    }
    return 0;
}
```

Output:--



```
C:\MinGW\bin\gdb.exe --interpreter=mi
Enter Number Of Units = 44
Electricity Bill is = 22
PS C:\Users\HP\Desktop> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-lxxky1wc.ojj' '--stdout=Microsoft-MIEngine-Out-oei4fld.qfd' '--stderr=Microsoft-MIEngine-Error-jibeanh.s3z' '--pid=Microsoft-MIEngine-Pid-q5fgbouh.3md' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number Of Units = 135
Electricity Bill is = 101.25
PS C:\Users\HP\Desktop> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-tgsy2juw.1g3' '--stdout=Microsoft-MIEngine-Out-txwksbig.mfw' '--stderr=Microsoft-MIEngine-Error-lgi2g0sl.3fb' '--pid=Microsoft-MIEngine-Pid-zepa2gcg.jj3' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number Of Units = 248
Electricity Bill is = 297.6
PS C:\Users\HP\Desktop> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-w123f4fi.40t' '--stdout=Microsoft-MIEngine-Out-p0zvl nw4.3ot' '--stderr=Microsoft-MIEngine-Error-iazytcds.aqm' '--pid=Microsoft-MIEngine-Pid-hwx50y1x.o3r' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number Of Units = 300
Electricity Bill is = 510
PS C:\Users\HP\Desktop> d:\Prasad\Cpp_prgm\1st.cpp
PS C:\Users\HP\Desktop>
```