23-ARID-850

NUSRAT FATIMA

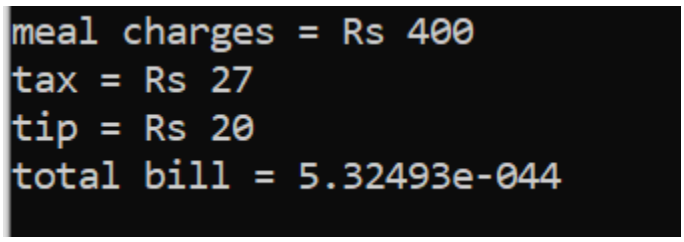
SUBMITTED T0: MAM AIMEN NAZIR

ASSIGNMENT NO:1

Q.1:

```
#include<iostream>
using namespace std;
int main()
{float totalbill,tax,tip,meal;
cout<<"meal charges = Rs "<<400<<endl;
cout<<"tax = Rs "<<400/100*6.75<<endl;
cout<<"tip = Rs "<<400/100*5<<endl;
cout<<"total bill = "<<meal+tax+tip<<endl;
return 0;
}
```

OUTPUT SCREENSHOT:

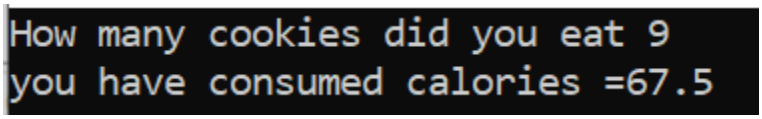


Q.2:

```
#include<iostream>
```

```
using namespace std;
int main()
{const int bag =40;
const int calnbag = 300;
const double calncookie= 7.5;
int cookies,calories;
{cout<<"How many cookies did you eat ";
cin>>cookies;
cout<<"you have consumed calories ="<<cookies*calncookie;
}
}
```

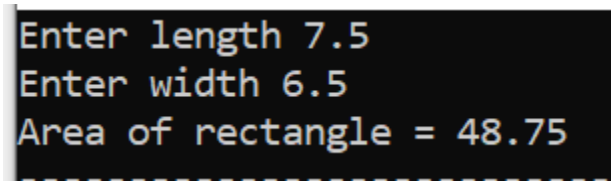
OUTPUT SCREENSHOT:



Q.3:

```
#include<iostream>
using namespace std;
int main()
{float length,width;
cout<<"Enter length ";
cin>>length;
cout<<"Enter width ";
cin>>width;
cout<<"Area of rectangle = "<<length*width;
}
```

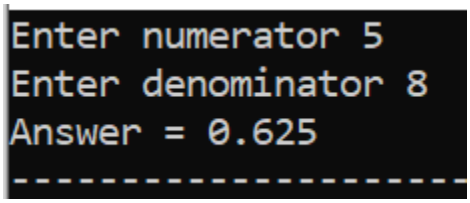
OUTPUT SCREENSHOT:



Q.4:

```
#include<iostream>
using namespace std;
int main()
{double numerator,denominator;
cout<<"Enter numerator ";
cin>>numerator;
cout<<"Enter denominator ";
cin>>denominator;
cout<<"Answer = "<<numerator/denominator;
}
```

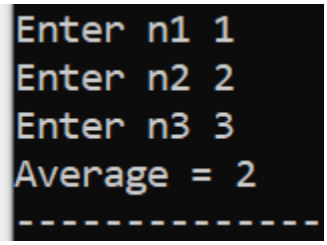
OUTPUT SCREENSHOT:



Q.5:

```
#include<iostream>
using namespace std;
int main()
{double n1,n2,n3;
cout<<"Enter n1 ";
cin>>n1;
cout<<"Enter n2 ";
cin>>n2;
cout<<"Enter n3 ";
cin>>n3;
cout<<"Average = "<<(n1+n2+n3)/3;
}
```

OUTPUT SCREENSHOT:

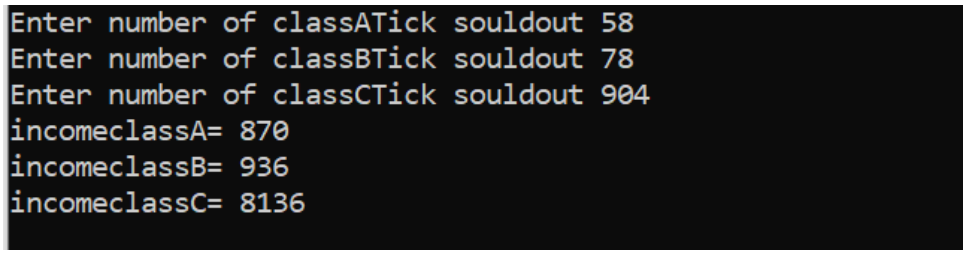


Q.6:

```
#include<iostream>
using namespace std;
int main()
{double classARs=15;
double classBRs=12;
double classCRs=9;
int classATick,classBTick,classCTick;
```

```
cout<<"Enter number of classATick souldout ";
cin>>classATick;
cout<<"Enter number of classBTick souldout ";
cin>>classBTick;
cout<<"Enter number of classCTick souldout ";
cin>>classCTick;
double incomeclassA=classARs*classATick;
double incomeclassB=classBRs*classBTick;
double incom cin eclassC=classCRs*classCTick;
cout<<"incomeclassA= "<<incomeclassA<<endl;
cout<<"incomeclassB= "<<incomeclassB<<endl;
cout<<"incomeclassC= "<<incomeclassC<<endl;
return 0;
}
```

OUTPUT SCREENSHOT:

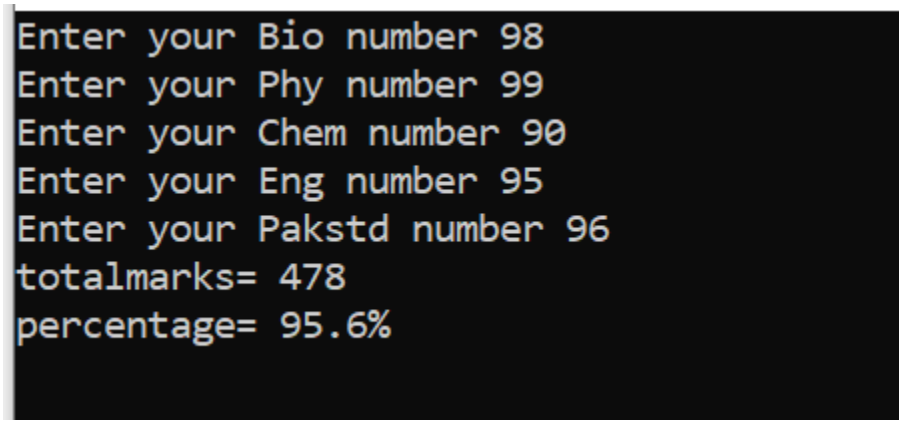


Q.7:

```
#include<iostream>
using namespace std;
int main()
{double Bio,Phy,Chem,Eng,Pakstd;
cout<<"Enter your Bio number ";
```

```
cin>>Bio;
cout<<"Enter your Phy number ";
cin>>Phy;
cout<<"Enter your Chem number ";
cin>>Chem;
cout<<"Enter your Eng number ";
cin>>Eng;
cout<<"Enter your Pakstd number ";
cin>>Pakstd;
double totalmarks=Bio+Phy+Chem+Eng+Pakstd;
double percentage =(totalmarks/500)*100;
cout<<"totalmarks= "<<totalmarks<<endl;
cout<<"percentage= "<<percentage<<"%"<<endl;
return 0;
}
```

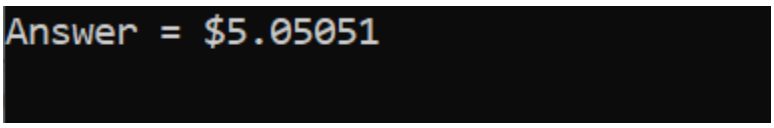
OUTPUT SCREENSHOT:



Q.8:

```
#include<iostream>
using namespace std;
int main()
{double DollarsinRs,Rs,Ans;
DollarsinRs= 99;
Rs=500;
Ans=Rs/DollarsinRs;
cout<<"Answer = "<<"$"<<Ans<<endl;
return 0;
}
```

OUTPUTSCREENSHOT:



Q.9:

```
#include<iostream>
#include<cmath>
using namespace std;
int main()
{double a= 3;
```

```
double b=5;
double c= 10;
double discriminant=a*b-4*a*c;
if(discriminant>0)
{double root1=(-b+sqrt(discriminant))/(2*a);
double root2=(-b-sqrt(discriminant))/(2*a);
cout<<"The solutions are real and distinct "<<endl;
cout<<"Root 1: "<<root1<<endl;
cout<<"Root 2: "<<root2<<endl;
}
else if(discriminant==0)
{double root=-b/(2*0);
cout<<"The solution is a repeated root:"<<endl;
cout<<"Root:"<<root<<endl;
}
else
{double realpart=-b/(2*a);
double imaginarypart=sqrt(-discriminant)/(2*a);
cout<<"The solutions are complex:"<<endl;
cout<<"Root 1:"<<realpart<<"+"<<imaginarypart<<"i"<<endl;
cout<<"Root 2:"<<realpart<<"-"<<imaginarypart<<"i"<<endl;
}
return 0;
}
```

OUTPUT SCREENSHOT:

```
The solutions are complex:
Root 1:-0.833333+1.70783i
Root 2:-0.833333-1.70783i

--------------------------------
```

Q.10:

```
#include<iostream>
using namespace std;
int main()
{double Temperature,TemperatureFarenheit;
Temperature=45;
TemperatureFarenheit=(Temperature*9/5)+32;
cout<<"Temperature in Farenheit = "<<TemperatureFarenheit<<endl;
return 0;
}
```

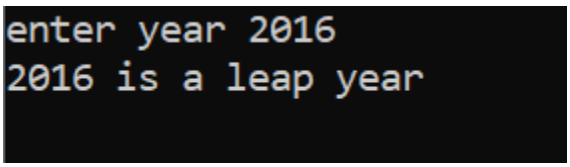
OUTPUTSCREENSHOT:

```
Temperature in Farenheit = 113
```

Q.11:

```
#include<iostream>
using namespace std;
int main()
{int year;
cout<<"enter year ";
cin>>year;
if((year%4==0&&year%100!=0)||(year%400==0))
{
cout<<year<<" is a leap year"<<endl;}
else
{cout<<year<<" is not a leap year ";
}
}
```

OUTPUT SCREENSHOT:

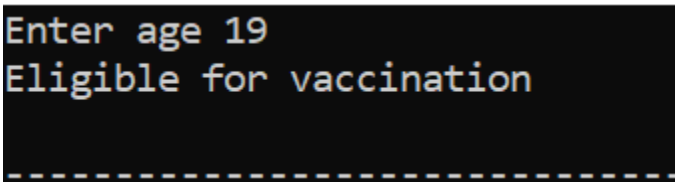


Q.12:

```
#include<iostream>
using namespace std;
int main()
{int age;
cout<<"Enter age ";
```

```
cin>>age;
if(age>=18)
{cout<<"Eligible for vaccination"<<endl;
}
else
{cout<<"Not eligible for vaccination"<<endl;
}
return 0;
}
```

OUTPUT SCREENSHOT:

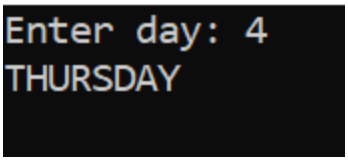


Q.13:

```
#include<iostream>
using namespace std;
int main()
{int day;
cout<<"Enter day: ";
cin>>day;
switch(day)
{
case 1:
```

```
cout<<"MONDAY"<<endl;
break;
case 2:
cout<<"TUESDAY"<<endl;
break;
case 3:
cout<<"WEDNESDAY"<<endl;
break;
case 4:
cout<<"THURSDAY"<<endl;
break;
case 5:
cout<<"FRIDAY"<<endl;
break;
case 6:
cout<<"SATURDAY<<endl";
break;
case 7:
cout<<"SUNDAY"<<endl;
break;
default:
cout<<"INVALID";
}
}
```

OUTPUT SCREENSHOT:

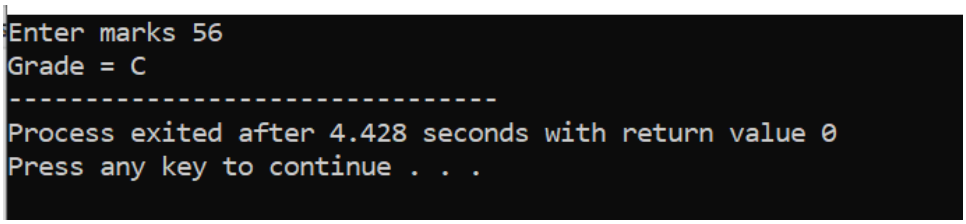


Q.14:

```
#include<iostream>
using namespace std;
int main()
{int marks;
cout<<"Enter marks ";
cin>>marks;
if(marks>=80&&marks<=100)
{cout<<"Grade = A+";
}
else if(marks>=70&&marks<80)
{cout<<"Grade = A";
}
else if(marks>=60&&marks<70)
{
cout<<"Grade = B-";
}
else if(marks>=50&&marks<60)
{
cout<<"Grade = C";
}
else if(marks>=40&&marks<50)
{cout<<"Grade = D";
}
```

```
else if(marks<40)
{cout<<"Grade = F";
}
else
cout<<"INVALID INPUT";
}
```

OUTPUT SCREENSHOT:



THE END OF PROGRAMMS