

23-ARID-850

NUSRAT FATIMA

SUBMITTED TO: 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;

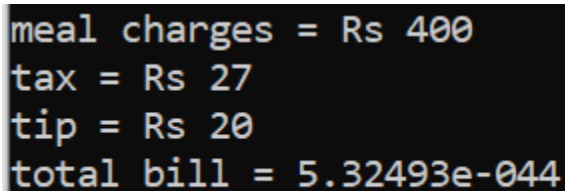
cout<<"tip = Rs "<<400/100*5<<endl;

cout<<"total bill = "<<meal+tax+tip<<endl;

return 0;

}
```

OUTPUT SCREENSHOT:



```
meal charges = Rs 400
tax = Rs 27
tip = Rs 20
total bill = 5.32493e-044
```

Q.2:

```
#include<iostream>
```

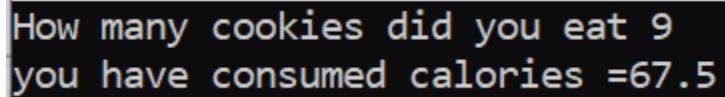
```

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:



```

How many cookies did you eat 9
you have consumed calories =67.5

```

Q.3:

```

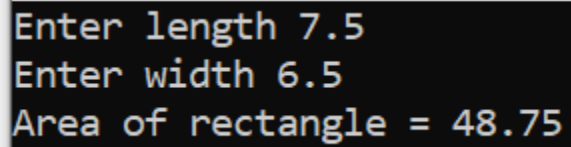
#include<iostream>

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:

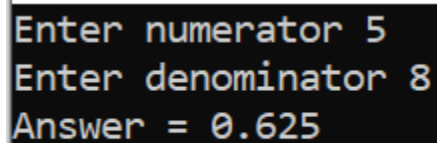


```
Enter length 7.5
Enter width 6.5
Area of rectangle = 48.75
```

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:



```
Enter numerator 5
Enter denominator 8
Answer = 0.625
```

Q.5:

```

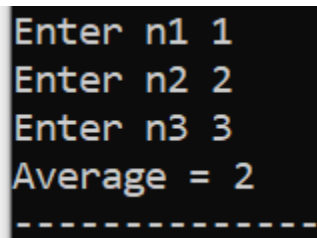
#include<iostream>

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:



```

Enter n1 1
Enter n2 2
Enter n3 3
Average = 2
-----

```

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;

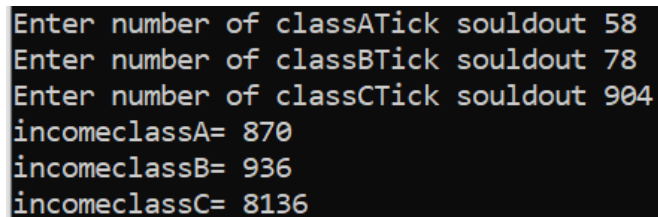
cout<<"Enter number of classBTick souldout ";
cin>>classBTick;

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:



```

Enter number of classATick souldout 58
Enter number of classBTick souldout 78
Enter number of classCTick souldout 904
incomeclassA= 870
incomeclassB= 936
incomeclassC= 8136

```

Q.7:

```

#include<iostream>

using namespace std;

int main()

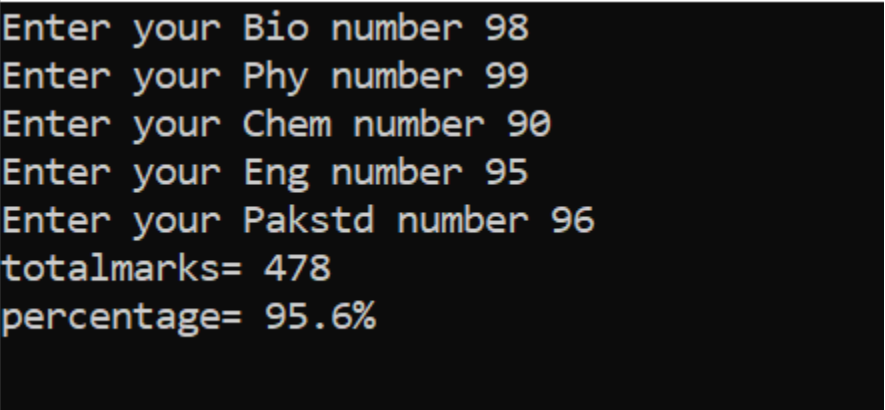
{double Bio,Phy,Chem,Eng,Pakstd;

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:

A screenshot of a terminal window with a black background and yellow text. The output shows the program's execution flow: it prompts for five subjects (Bio, Phy, Chem, Eng, Pakstd) and their respective marks. The user enters 98 for Bio, 99 for Phy, 90 for Chem, 95 for Eng, and 96 for Pakstd. The program then calculates the total marks as 478 and the percentage as 95.6%.

```
Enter your Bio number 98
Enter your Phy number 99
Enter your Chem number 90
Enter your Eng number 95
Enter your Pakstd number 96
totalmarks= 478
percentage= 95.6%
```

Q.8:

```
#include<iostream>

using namespace std;

int main()

{double DollarsinRs,Rs,Ans;

DollarsinRs= 99;

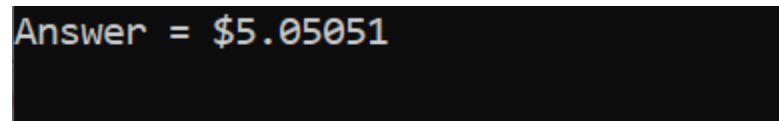
Rs=500;

Ans=Rs/DollarsinRs;

cout<<"Answer = "<<"$"<<Ans<<endl;

return 0;

}
```

OUTPUTSCREENSHOT:A screenshot of a terminal window with a black background. The text "Answer = \$5.05051" is displayed in a light blue or cyan monospaced font.**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,TemperatureFahrenheit;  
Temperature=45;  
TemperatureFahrenheit=(Temperature*9/5)+32;  
cout<<"Temperature in Farenheit = "<<TemperatureFahrenheit<<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))

{

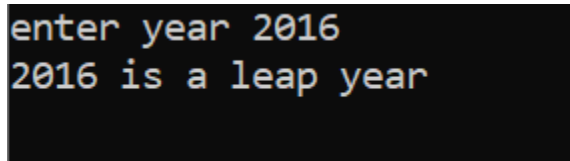
cout<<year<<" is a leap year"<<endl;}

else

{cout<<year<<" is not a leap year ";

}

}
```

OUTPUT SCREENSHOT:A screenshot of a terminal window with a black background and light blue/green text. The first line shows the prompt 'enter year' followed by the user input '2016'. The second line shows the program output '2016 is a leap year'.**Q.12:**

```
#include<iostream>

using namespace std;

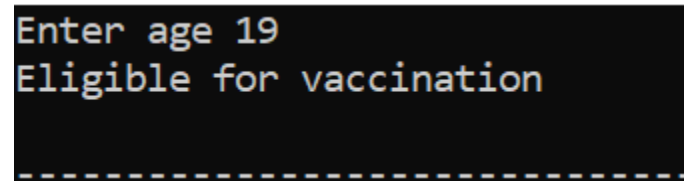
int main()

{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:



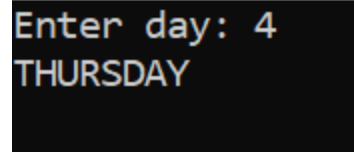
```
Enter age 19
Eligible for vaccination
```

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:



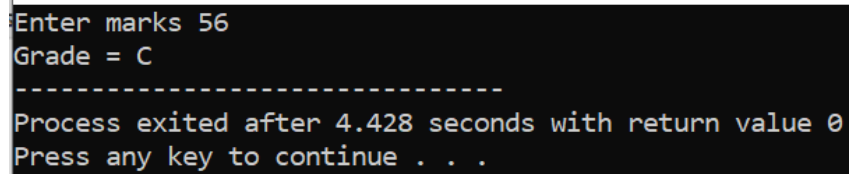
Enter day: 4
THURSDAY

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:



```
Enter marks 56
Grade = C
-----
Process exited after 4.428 seconds with return value 0
Press any key to continue . . .
```

THE END OF PROGRAMMS