1. And 11.

#include<iostream>

#include<string.h>

using namespace std;

class num{

public:

int nume(int a){

cout<<"Integer number: "<<a<<"\n";

}

double nume(double b){

cout<<"Double number: "<<b<<"\n";

}

char nume(char c[100]){

cout<<"String: "<<c;

}

};

int main(){

num n1;

n1.nume(34);

n1.nume(12.67);

n1.nume("hello world");

}

2.

#include<iostream>

using namespace std;

int main(){

float a;

cout<<"Enter a number: ";

cin>>a;

if(a==0){

cout<<"It is neither negative nor positive.";

}

else if(a<0){

cout<<"It is a negative number.";

}

else{

cout<<"It is a positive number.";

}

}

3.

#include<iostream>

using namespace std;

int main(){

int rows,i,j;

cout<<"Enter rows: ";

cin>>rows;

for(i=1;i<=rows;i++){

for(j=1;j<=(rows-i);j++){

cout<<" ";

}

for(j=1;j<=i;j++){

cout<<i<<" ";

}

cout<<"\n";

}

}

4.

#include<iostream>

#include<string.h>

using namespace std;

class emp{

public:

string name;

int sal;

int id;

string add;

emp(string name,int sal,int id,string add){

this->name=name;

this->sal=sal;

this->id=id;

this->add=add;

}

void display(){

cout<<"Name: "<<name<<"\n";

cout<<"Salary: "<<sal<<"\n";

cout<<"Id No: "<<id<<"\n";

cout<<"Address: "<<add<<"\n\n";

}

};

int main(){

emp e1=emp("Shubh",24000,1,"Surat");

emp e2=emp("Laabh",32000,2,"Delhi");

e1.display();

e2.display();

}

5.

#include<iostream>

using namespace std;

class sum{

public:

int a;

int b;

int add(int a,int b){

return a+b;

}

};

int main(){

sum s1;

s1.a=78;

s1.b=56;

cout<<s1.add(s1.a,s1.b);

}

6. And 7.

#include<iostream>

#include<string.h>

using namespace std;

class student{

public:

string name;

int roll;

int marks;

string add;

student(string name,int roll,int marks,string add){

this->name=name;

this->roll=roll;

this->marks=marks;

this->add=add;

}

void display(){

cout<<"Name: "<<name<<"\n";

cout<<"RollNo: "<<roll<<"\n";

cout<<"Marks: "<<marks<<"\n";

cout<<"Address: "<<add<<"\n\n";

}

};

int main(){

student s1=student("Shubh",1,98,"Surat");

student s2=student("Laabh",2,90,"Delhi");

s1.display();

s2.display();

}

8.

#include<iostream>

#include<string.h>

using namespace std;

class marks{

public:

int mark;

};

class student:public marks{

public:

string name;

int roll;

};

int main(){

student s1;

s1.name="Atha";

s1.roll=1;

s1.mark=89;

cout<<"Name: "<<s1.name<<"\n";

cout<<"RollNo: "<<s1.roll<<"\n";

cout<<"Marks: "<<s1.mark;

}

9. And 19.

#include<iostream>

#include<string.h>

using namespace std;

class marks{

public:

int mark;

};

class id:public marks{

public:

string add;

int roll;

};

class student:public id{

public:

string name;

};

int main(){

student s1;

s1.name="Atha";

s1.roll=1;

s1.mark=89;

s1.add="Surat";

cout<<"Name: "<<s1.name<<"\n";

cout<<"RollNo: "<<s1.roll<<"\n";

cout<<"Marks: "<<s1.mark<<"\n";

cout<<"Address: "<<s1.add;

}

10.

#include<iostream>

#include<string.h>

using namespace std;

class marks{

public:

int mark;

};

class id{

public:

string add;

int roll;

};

class student:public marks,public id{

public:

string name;

};

int main(){

student s1;

s1.name="Atha";

s1.roll=1;

s1.mark=89;

s1.add="Surat";

cout<<"Name: "<<s1.name<<"\n";

cout<<"RollNo: "<<s1.roll<<"\n";

cout<<"Marks: "<<s1.mark<<"\n";

cout<<"Address: "<<s1.add;

}

12.

#include<iostream>

#include<string.h>

using namespace std;

class marks{

public:

int math;

int chem;

int phy;

};

class student:public marks{

public:

string name;

int roll;

};

int main(){

int a,avg;

string c="y";

student s1;

s1.name="Atha";

s1.roll=1;

s1.math=89;

s1.chem=86;

s1.phy=91;

while(c=="y"){

cout<<"1.Individual marks."<<"\n";

cout<<"2.Percentage with grades."<<"\n";

cout<<"Enter your choice: ";

cin>>a;

switch(a){

case 1:

cout<<"Name: "<<s1.name<<"\t"<<"Rollno: "<<s1.roll<<"\n";

cout<<"Mathematics: "<<s1.math<<"\n";

cout<<"Chemistry: "<<s1.chem<<"\n";

cout<<"Physics: "<<s1.phy<<"\n";

break;

case 2:

cout<<"Name: "<<s1.name<<"\t"<<"Rollno: "<<s1.roll<<"\n";

avg=(s1.math+s1.chem+s1.phy)/3;

cout<<"Percentage: "<<avg<<"\n";

if(avg<=60){

cout<<"Grade: C"<<"\n";

}

else if((avg>60)&&(avg<80)){

cout<<"Grade: B"<<"\n";

}

else{

cout<<"Grade: A"<<"\n";

}

break;

}

cout<<"Do you want to continue?y/n: ";

cin>>c;

}

}

13.

#include<iostream>

#include<string.h>

using namespace std;

int main(){

int arr[5];

int i,j,temp;

cout<<"Enter the elements of the array: ";

for(i=0;i<5;i++){

cin>>arr[i];

}

for(i=0;i<5;i++){

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

if(arr[i]>arr[j]){

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

}

for(i=0;i<5;i++){

cout<<arr[i]<<" ";

}

}

14.

#include <iostream>

using namespace std;

int main() {

int a[10][10];

int b[10][10];

int ab[10][10];

int i,j,k;

int r1,c1;

int r2,c2;

cout<<"Enter the elements of 1st matrix"<<"\n";

cout<<"Enter the columns: ";

cin>>c1;

cout<<"enter the rows: ";

cin>>r1;

cout<<"\nEnter the elements of second matrix."<<"\n";

cout<<"Enter the columns: ";

cin>>c2;

cout<<"enter the rows: ";

cin>>r2;

if(r1!=c2){

cout<<"Multiplication not possible.";

}

else{

for(i=0;i<r1;i++){

for(j=0;j<c1;j++){

cout<<"a"<<i+1<<j+1<<": ";

cin>>a[i][j];

}

}

for(i=0;i<r2;i++){

for(j=0;j<c2;j++){

cout<<"b"<<i+1<<j+1<<": ";

cin>>b[i][j];

}

}

for(i=0;i<r1;i++){

for(j=0;j<c2;j++){

ab[i][j]=0;

}

}

for(i=0;i<r1;++i){

for(j=0;j<c2;++j){

for(k=0;k<c1;++k){

ab[i][j]+=a[i][k]\*b[k][j];

}

}

}

}

for(i=0;i<r1;i++){

for(j=0;j<c2;j++){

cout<<"\t"<<ab[i][j];

if(j==c2-1){

cout<<"\n\n";

}

}

}

}

15.

#include <iostream>

using namespace std;

int main(){

int a[2][2];

int b[2][2];

int i,j;

int r,c;

cout<<"Enter elements of matrix A 2X2:";

for(r=0;r<2;r++){

for(c=0;c<2;c++){

cin>>a[r][c];

}

}

cout<<"Enter elements of matrix B 2X2:";

for(r=0;r<2;r++){

for(c=0;c<2;c++){

cin>>b[r][c];

}

}

int ie=1;

for(r=0;r<2;r++){

for(c=0;c<2;c++){

if (a[r][c]!=b[r][c])

{

ie=0;

break;

}

}

}

if(ie==1){

cout<<"They are equal matrix.";

}

else{

cout<<"They are not equal.";

}

}

16.

#include<iostream>

#include<string.h>

using namespace std;

int palin(int x){

int rev=0;

int digit=0;

while(x!=0){

digit=x%10;

x=x/10;

rev=rev\*10+digit;

}

return rev;

}

int main(){

int result;

int a;

cout<<"Enter the number: ";

cin>>a;

result=palin(a);

if(result==a){

cout<<"The number is a palindrome.";

}

else{

cout<<"The number is not a palindrome.";

}

}

17.

#include <iostream>

using namespace std;

int Cb(int a){

return a;

}

int main() {

int x=0,y=0,z=0,c;

char q[10]="y";

do{

cout<<"1.Show current balance."<<"\n";

cout<<"2.Deposit money."<<"\n";

cout<<"3.Withdraw money."<<"\n";

cout<<"Enter your choice: ";

cin>>c;

switch(c)

{

case 1:

Cb(x);

if(Cb(x)==0){

cout<<"NO MONEY!! deposit first."<<"\n";

}

else{

cout<<Cb(x);

}

break;

case 2:

cout<<"Enter the amount: ";

cin>>y;

x=x+y;

Cb(x);

cout<<"Money deposited."<<"\n";

break;

case 3:

cout<<"Enter the amount: ";

cin>>z;

if(x<z){

cout<<"Amount not available."<<"\n";

cout<<"Current balance: "<<x<<"\n";

}

else{

x=x-z;

Cb(x);

cout<<"Amount deducted."<<"\n";

}

}

cout<<"\n"<<"Do you want to continue?y/n: ";

cin>>q;

}while(q!="y");

}

18.

#include <iostream>

using namespace std;

class measure{

public:

int l=3;

int b=5;

};

class area:public measure{

public:

int A=l\*b;

};

int main(){

area a;

cout<<a.A;

}

20.

#include <iostream>

using namespace std;

class area{

private:

int l=3;

int b=5;

int area;

public:

void r(int l,int b){

this->l=l;

this->b=b;

area=l\*b;

}

friend class dis;

friend void display(class area);

};

class dis{

public:

void display(area a1){

cout<<"Area: "<<a1.area;

}

};

int main(){

area a1;

a1.r(3,5);

dis d1;

d1.display(a1);

}