C++ Programs (30.8.22)

Write a c++ program to find volume of the cone using class and object

#include<iostream>

using namespace std;

class volume

{

public:

int r,h;

float vol;

void data();

};

void volume::data()

{

cout<<"Enter the value of radius = ";

cin>>r;

cout<<"Enter the value of height = ";

cin>>h;

cout<<"The volume of the cone is = ";

vol=0.3\*3.14\*r\*r\*h;

cout<<vol;

}

int main()

{

volume a;

a.data();

return 0;

}

Outputs:

Enter the value of radius = 6

Enter the value of height = 4

The volume of the cone is = 135.648

Enter the value of radius = 5

Enter the value of height = 5

The volume of the cone is = 117.75

Enter the value of radius = 8

Enter the value of height = 4

The volume of the cone is = 241.152

Write a C++ program to calculate the simple interest and compound interest using class and object.

#include<iostream>

#include<math.h>

using namespace std;

class interest

{

public:

float p,n,r;

float si,ci;

void getdata();

void simpleinterest();

void compundinterest();

};

void interest::getdata()

{

cout<<"Enter the value of p= ";

cin>>p;

cout<<"Enter the value of n= ";

cin>>n;

cout<<"Enter the value of r= ";

cin>>r;

}

void interest::simpleinterest()

{

cout<<"the simple interest is= ";

si=(p\*n\*r)/100;

cout<<si;

}

void interest::compundinterest()

{

cout<<"\nThe compound interest is= ";

ci=p\*pow((1+(r/n)),n);

cout<<ci;}

int main()

{

interest i;

i.getdata();

i.simpleinterest();

i.compundinterest();

return 0;

}

Output:

Enter the value of p= 10000

Enter the value of n= 2

Enter the value of r= 0.10

the simple interest is= 20

The compound interest is= 11025

Enter the value of p= 20000

Enter the value of n= 1

Enter the value of r= 0.40

the simple interest is= 80

The compound interest is= 28000

Write a C++ program to find greatest among three using class and object

#include<iostream>

using namespace std;

class greatest

{

public:

int a,b,c;

void getdata();

void comparision();

};

void greatest::getdata()

{

cout<<"Enter the value of a= ";

cin>>a;

cout<<"Enter the value of b= ";

cin>>b;

cout<<"Enter the value of c= ";

cin>>c;

}

void greatest::comparision()

{

if(int(a)&& int(b)&& int(c))

{

if(a>b && a>c)

{

cout<<"A is greatest";

}

else if(b>a && b>c)

{

cout<<"B is greatest";

}

else

{

cout<<"C is greatest";

}

}

else

{

cout<<"Invalid Input";

}

}

int main()

{

greatest g;

g.getdata();

g.comparision();

return 0;

}

Output:

Enter the value of a= 9

Enter the value of b= 5

Enter the value of c= 6

A is greatest

Enter the value of a= 9

Enter the value of b= -10

Enter the value of c= 23

C is greatest

Write a c++ program for employee report using hra,pa,ta,da,find the gross salary and net salary by getting the salary from the user.

#include<iostream>

using namespace std;

class employee

{

public:

int empno;

float red,lic,basic,hra,da,ta,pa,loan,gs,ns;

char empname[10];

void getdata();

void grosssalary();

void netsalary();

void display();

};

void employee::getdata()

{

cout<<"Enter employee name= ";

cin>>empname;

cout<<"Enter employee number= ";

cin>>empno;

cout<<"Enter the basic salary= ";

cin>>basic;

}

void employee::grosssalary()

{

hra=basic\*0.10;

pa=basic\*0.15;

ta=basic\*0.15;

da=basic;

gs=basic+hra+pa+ta+da;

}

void employee::netsalary()

{

cout<<"\nEnter the loan amount = ";

cin>>loan;

cout<<"Enter the value of LIC = ";

cin>>lic;

red=loan+lic;

ns=gs-red;

}

void employee::display()

{

cout<<"\n-----Employee details-----";

cout<<"\nEmployee name = "<<empname;

cout<<"\nEmployee number = "<<empno;

cout<<"\nEmployee salary = "<<basic;

cout<<"\nGross salary = "<<gs;

cout<<"\nNet salary = "<<ns;

}

int main()

{

employee e;

e.getdata();

e.grosssalary();

e.netsalary();

e.display();

return 0;

}

Write a c++ program to find the area of rectangle using constructor and destructor.

#include<iostream>

using namespace std;

class area

{

public:

int l,b,a;

area();

};

area::area()

{

cout<<"Enter the value of l= ";

cin>>l;

cout<<"Enter the value fo b= ";

cin>>b;

a=l\*b;

cout<<"Area of rectangle= "<<a;

}

int main()

{

area r;

return 0;

}

Output:

Enter the value of l= 6

Enter the value fo b= 4

Area of rectangle= 24

Write a C++ program for student report by getting the marks and find the average and give the grade according to the average.

#include<iostream>

using namespace std;

int main()

{

int m1,m2,m3,tot;

float avg;

cout<<"Enter the first mark= ";

cin>>m1;

cout<<"Enter the second mark= ";

cin>>m2;

cout<<"Enter the thrid mark= ";

cin>>m3;

if(int(m1)&&int(m2)&&int(m3))

{

if(m1>=50 && m1<=100 && m2>=50 && m2<=100 && m3>=50 && m3<=100)

{

tot=m1+m2+m3;

avg=tot/3;

cout<<"Total is "<<tot;

cout<<"\nAverage is "<<avg;

}

else

{

cout<<"Invalid input";

}

}

else

{

cout<<"Invalid input";

}

return 0;

}

Output:

Enter the first mark= 56

Enter the second mark= 76

Enter the thrid mark= 78

Total is 210

Average is 70