**1. Write a program in C++ to print a welcome text in a separate line.**

#include <iostream.h>

#include <conio.h>

main()

{

clrscr();

cout << "\n\n Print a welcome text in a separate line :\n";

cout << "----------------------------------------------\n";

cout << " Welcome to \n" ;

cout << " w3resource.com "<<endl ;

}

**2. Write a program in C++ to print the sum of two numbers.**

#include <iostream.h>

#include <conio.h>

main()

{

cout << "\n\n Print the sum of two numbers :\n";

cout << "-----------------------------------\n";

cout << " The sum of 29 and 30 is : "<< 29+30 <<"\n\n" ;

}

**3.Write a program in C++ to find Size of fundamental data types.**

#include <iostream.h>

#include <conio.h>

main()

{

cout << "\n\n Find Size of fundamental data types :\n";

cout << "------------------------------------------\n";

cout << " The sizeof(char) is : " << sizeof(char) << " bytes \n" ;

cout << " The sizeof(short) is : " << sizeof(short) << " bytes \n" ;

cout << " The sizeof(int) is : " << sizeof(int) << " bytes \n" ;

cout << " The sizeof(long) is : " << sizeof(long) << " bytes \n" ;

cout << " The sizeof(long long) is : " << sizeof(long long) << " bytes \n";

cout << " The sizeof(float) is : " << sizeof(float) << " bytes \n" ;

cout << " The sizeof(double) is : " << sizeof(double) << " bytes \n";

cout << " The sizeof(long double) is : " << sizeof(long double) << " bytes \n";

}

**4. Write a program in C++ to print the sum of two numbers using variables.**

#include <iostream.h>

#include <conio.h>

main()

{

cout << "\n\n Print the sum of two numbers :\n";

cout << "-----------------------------------\n";

int a;

int b;

int sum;

a=29;

b=30;

sum=a+b;

cout << " The sum of "<< a << " and "<<b <<" is : "<< sum <<"\n\n" ;

}

5. Write a program in C++ to check whether the primitive values crossing the limits or not.

#include <iostream.h>

#include <conio.h>

main()

{

cout << "\n\n Check whether the primitive values crossing the limits or not :\n";

cout << "--------------------------------------------------------------------\n";

char gender = 'F';

bool isEmployed = true;

unsigned short numOfsons = 2;

short yearOfAppt = 2009;

unsigned int YearlyPackage = 1500000;

double height = 79.48;

float gpa = 4.69f;

long totalDrawan = 12047235L;

long long balance = 995324987LL;

cout << " The Gender is : " << gender << endl;

cout << " Is she married? : " << isEmployed << endl;

cout << " Number of sons she has : " << numOfsons << endl;

cout << " Year of her appointment : " << yearOfAppt << endl;

cout << " Salary for a year : " << YearlyPackage << endl;

cout << " Height is : " << height << endl;

cout << " GPA is " << gpa << endl;

cout << " Salary drawn upto : " << totalDrawan << endl;

cout << " Balance till : " << balance << endl;

}

**6. Write a program in C++ to add two numbers accept through keyboard.**

#include <iostream.h>

#include <conio.h>

main()

{

int num1, num2, sum;

cout << "\n Sum of two numbers :\n";

cout << "-------------------------\n";

cout << " Input 1st number : ";

cin >> num1 ;

cout << " Input 2nd number : ";

cin >> num2;

sum = num1 + num2;

cout <<" The sum of the numbers is : " << sum << endl;

cout << endl;

}

**7. Write a program in C++ to swap two numbers.**

#include <iostream.h>

#include <conio.h>

main()

{

cout << "\n\n Swap two numbers :\n";

cout << "-----------------------\n";

int num1, num2, temp;

cout << " Input 1st number : ";

cin >> num1 ;

cout << " Input 2nd number : ";

cin >> num2;

temp=num2;

num2=num1;

num1=temp;

cout << " After swapping the 1st number is : "<< num1 <<"\n" ;

cout << " After swapping the 2nd number is : "<< num2 <<"\n\n" ;

}

**8. Write a program in C++ to calculate the volume of a sphere.**

#include <iostream.h>

#include <conio.h>

main()

{

int rad1;

float volsp;

cout << "\n\n Calculate the volume of a sphere :\n";

cout << "---------------------------------------\n";

cout<<" Input the radius of a sphere : ";

cin>>rad1;

volsp=(4\*3.14\*rad1\*rad1\*rad1)/3;

cout<<" The volume of a sphere is : "<< volsp << endl;

cout << endl;

}

**9. Write a program in C++ to find the Area and Perimeter of a Rectangle.**

#include <iostream.h>

#include <conio.h>

main()

{

int width, lngth, area, peri;

cout << "\n\n Find the Area and Perimeter of a Rectangle :\n";

cout << "-------------------------------------------------\n";

cout<<" Input the length of the rectangle : ";

cin>>lngth;

cout<<" Input the width of the rectangle : ";

cin>>width;

area=(lngth\*width);

peri=2\*(lngth+width);

cout<<" The area of the rectangle is : "<< area << endl;

cout<<" The perimeter of the rectangle is : "<< peri << endl;

cout << endl;

}

**10. Write a program in C++ to convert temperature in Fahrenheit to Celsius.**

#include <iostream.h>

#include <conio.h>

main()

{

float frh, cel;

cout << "\n\n Convert temperature in Fahrenheit to Celsius :\n";

cout << "---------------------------------------------------\n";

cout << " Input the temperature in Fahrenheit : ";

cin >> frh;

cel = ((frh \* 5.0)-(5.0 \* 32))/9;

cout << " The temperature in Fahrenheit : " << frh << endl;

cout << " The temperature in Celsius : " << cel << endl;

cout << endl;

}

**Class and Objects**

**/\* C++ Program to find Factorial of a number using class \*/**

#include <iostream.h>

#include <conio.h>

class factorial

{

private:

int n,n1,f=1;

public:

void input();

void calc();

void display();

};

void factorial::input()

{

cout<<"\nEnter any number :: ";

cin>>n;

}

void factorial::calc()

{

n1=n;

if(n==0||n==1)

cout<<"\nFactorial of Number [ "<<n<<" ] is :: 1\n";

else

{

while(n>0)

{

f=f\*n;

n--;

}

}

}

void factorial::display()

{

cout<<"\nFactorial of [ "<<n1<<" ] is :: "<<f<<"\n";

}

void main ()

{

factorial f;

f.input();

f.calc();

f.display();

}

***Write a C++ program to Swap two numbers using class***

#include <iostream.h>

#include <conio.h>

class swap

{

int a,b;

public:

void getdata();

void swapv();

void display();

};

void swap::getdata()

{

cout<<“Enter two numbers:”;

cin>>a>>b;

}

void swap::swapv()

{

a=a+b;

b=a-b;

a=a-b;

}

void swap::display()

{

cout<<“a=”<<a<<“tb=”<<b;

}

void main()

{

swap s;

s.getdata();

cout<<“\nBefore swap: \n”;

s.display();

s.swapv();

cout<<“nnAfter swap:n”;

s.display();

}

**//Write a C++ program to display Student details using classes**

#include <iostream.h>

#include <conio.h>

class student

{

private:

char name[20],regd[10],branch[10];

int sem;

public:

void input();

void display();

};

void student::input()

{

cout<<"Enter Name:";

cin>>name;

cout<<"Enter Regdno.:";

cin>>regd;

cout<<"Enter Branch:";

cin>>branch;

cout<<"Enter Sem:";

cin>>sem;

}

void student::display()

{

cout<<"\nName:"<<name;

cout<<"\nRegdno.:"<<regd;

cout<<"\nBranch:"<<branch;

cout<<"\nSem:"<<sem;

}

int main()

{

student s;

s.input();

s.display();

}

**//Write a C++ Program to display entered Date**

#include <iostream.h>

#include <conio.h>

class date

{

private:

int dd,mm,yyyy;

public:

void input();

void display();

};

void date::input()

{

cout<<"Enter Year:";

cin>>yyyy;

cout<<"Enter Month:";

cin>>mm;

cout<<"Enter Day:";

cin>>dd;

}

void date::display()

{

cout<<"Today's Date in dd/mm/yyyy format:"<<dd<<"/"<<mm<<"/"<<yyyy;

}

int main ()

{

date d;

d.input();

d.display();

}