**C++ programs**

**Q:Program that take 3 input values from user and calculate value of s by using formula s=(a+b+c)/2.**

#Include<iostream>

using namespace std;

main()

{

float average ,s;

int a,b,c;

cout<<"enter value of variable a= ";

cin>>a;

cout<<"enter value of variable b= ";

cin>>b;

cout<<"enter value of variable c= ";

cin>>c;

s=(a+b+c)/2;

cout<<"s= "<<s;

return 0;

}

**Q:WRITE A PROGRAM THAT TAKE TWO VALUES FROM USER AS INPUT AND CALCULATE THE SUM.**

#include<iostream>

using namespace std;

main()

{

int a,b;

cout<<"enter value of a=";

cin>>a;

cout<<"enter value of b=";

cin>>b;

cout<<"sum of a&b= "<<a+b<<endl;

return 0;

}

#include<iostream>

using namespace std;

main()

{

int r,o,t;

float p;

string n,d;

cout<<"write student roll no:"<<endl;

cin>>r;

cout<<"write student name:"<<endl;

cin>>n;

cout<<"write student department name:"<<endl;

cin>>d;

cout<<"write obtained marks:"<<endl;

cin>>o;

cout<<"write total marks:"<<endl;

cin>>t;

p=(o\*100)/t;

cout<<"student percentage is:"<<p<<endl;

cout<<"student roll no is:"<<r<<endl;

cout<<"student name is:"<<n<<endl;

cout<<"student department name is:"<<d<<endl;

cout<<"obtained marks are:"<<o<<endl;

cout<<"total marks are:"<<t<<endl;

cout<<"student percentage is:"<<p<<endl;

return 0;

}

#include<iostream>

using namespace std;

main()

{

int radius;

float area,circumference;

cout<<"write value of radius:"<<endl;

cin>>radius;

area=3.14\*radius\*radius;

circumference=2\*3.14\*radius;

cout<<"area of circle is:"<<area<<endl;

cout<<"circumference of circle is:"<<circumference<<endl;

return 0;

}

#include<iostream>

using namespace std;

main()

{

int a,b;

cout<<"enter values of 1st integer:"<<endl;

cin>>a;

cout<<"enter values of 2nd integer:"<<endl;

cin>>b;

if(a>b)

cout<<"first integer is greater than second"<<endl;

if(a<b)

cout<<"first integer is smaller than second"<<endl;

if(a==b)

cout<<"both integers are equal"<<endl;

if(a!=b)

cout<<"both integers are not equal"<<endl;

return 0;

}#include<iostream>

using namespace std;

main()

{

int number;

cout<<"enter any number= ";

cin>>number;

if (number%2==0)

cout<<"the number is even.";

else

cout<<"the number is odd.";

return 0;

}

#include<iostream>

using namespace std;

main()

{

int a,b;

cout<<"enter value of first number= "<<endl;

cin>>a;

cout<<"enter value of second number= "<<endl;

cin>>b;

if (a%b==0)

cout<<"first number is multiple of the second number.";

else

cout<<"first number is not the multiple of second number.";

return 0;

}

#include<iostream>

using namespace std;

main()

{

int a,b,c;

cout<<"enter value of first integer= "<<endl;

cin>>a;

cout<<"enter value of second integer= "<<endl;

cin>>b;

cout<<"enter value of third integer= "<<endl;

cin>>c;

if (a>b & a>c){

cout<<"first number is greater";

else if(b>c & b>a)

cout<<"second number is greater";

else

cout<<"third number is greater";

return 0;

}

#include<iostream>

using namespace std;

main()

{

int marks;

cout<<"enter marks= "<<endl;

cin>>marks;

if (marks>=80)

cout<<"your grade is A";

else if(marks>=70)

cout<<"your grade is B";

else if(marks>=60)

cout<<"your grade is C";

else if(marks>=50)

cout<<"your grade is D";

else

cout<<"grade F. You are Fail. Work hard";

return 0;

}

#include<iostream>

using namespace std;

main()

{

int marks;

cout<<"enter marks= "<<endl;

cin>>marks;

if (marks>=80)

cout<<"congratulations you are pass";

else

cout<<"you are fail";

return 0;

}

#include<iostream>

using namespace std;

main()

{

char x;

cout<<"enter any letter: ";

cin>>x;

if(x=='A'|| x== 'E' || x=='I'||x=='O'||x=='U'|| x=='a'|| x== 'e' || x=='i'||x=='o'||x=='u')

cout<<"it is a vowel";

else

cout<<"it is a consonant" ;

return 0;

}

#include<iostream>

using namespace std;

main()

{

char x;

cout<<"enter any character: ";

cin>>x;

switch(x)

{

case 'A':

case 'E':

case 'I':

case 'O':

case 'U':

case 'a':

case 'e':

case 'i':

case 'o':

case 'u':

cout<<"it is a vowel";

break;

default:

cout<<"it is a consonant";

}

return 0;

}

#include<iostream>

using namespace std;

main()

{

int n;

cout<<"enter any number from 1-10: ";

cin>>n;

switch(n)

{

case 1:

cout<<"I ONE";

break;

case 2:

cout<<"II TWO";

break;

case 3:

cout<<"III THREE";

break;

case 4:

cout<<"IV FOUR";

break;

case 5:

cout<<"V FIVE";

break;

case 6:

cout<<"VI SIX";

break;

case 7:

cout<<"VII SEVEN";

break;

case 8:

cout<<"VIII EIGHT";

break;

case 9:

cout<<"IX NINE";

break;

case 10:

cout<<"X TEN";

break;

default:

cout<<"invalid number";

}

return 0;

}

#include<iostream>

using namespace std;

main()

{

int n;

cout<<"enter any number from 1-7: ";

cin>>n;

switch(n)

{

case 1:

cout<<"monday";

break;

case 2:

cout<<"tuesday";

break;

case 3:

cout<<"wednesday";

break;

case 4:

cout<<"thursday";

break;

case 5:

cout<<"friday";

break;

case 6:

cout<<"saturday";

break;

case 7:

cout<<"sunday";

break;

default:

cout<<"invalid number";

}

return 0;

}

#include<iostream>

using namespace std;

main()

{

char x;

cout<<"press any key: ";

cin>>x;

switch(x)

{

case 'a'...'z':

cout<<"it is a small letter";

break;

case 'A'...'Z':

cout<<"it is a capital letter";

break;

case '0'...'9':

cout<<"it is a digit";

break;

default:

cout<<"invalid number";

}

return 0;

}

#include<iostream>

using namespace std;

main()

{

int n;

cout<<"enter any number: ";

cin>>n;

switch(n%2)

{

case 0:

cout<<"the number is even";

break;

case 1:

cout<<"the number is odd";

break;

}

return 0;

}

#include<iostream>

using namespace std;

main(){

int number;

int factorial=1;

cout<<"enter a number: ";

cin>>number;

if(number<0){

cout<<"factorial is not defined for negative integers"<<endl;

} else{

do{

factorial\*=number;

number--;

}while (number>0);

cout<<"factorial is "<<factorial<<endl;

}

return 0;

}

#include<iostream>

using namespace std;

main(){

int i=0;

while(i<5){

cout<<i<<"\n";

i++;

}

return 0;

}