ASSIGNMENT---3(LOOPS)

1. WAP to display your name 5 times on screen ??

#include<iostream>

using namespace std;

class Name

{

char c;

public: void display()

{

cout<<"Your Name is\n";

for(c=1;c<=5;c++)

{

cout<<"SAI MARADALA"<<endl;

}

}};

int main()

{

Name n;

n.display();

}

1. WAP to display no 1 to 10 on screen ??

#include<iostream>

using namespace std;

class Number

{

int num;

public: void display()

{

cout<<"Numbers are:\n";

for(num=1;num<=10;num++)

{

cout<<num<<endl;

}}};

int main()

{

Number n;

n.display();

}

1. WAP to display first 10 even numbers ??

#include<iostream>

using namespace std;

class Even

{

int num;

public: void display()

{

cout<<"1st Ten Even Numbers are:\n";

for(num=1;num<=20;num++)

{

if(num%2==0)

cout<<num<<endl;

}}};

int main()

{

Even e;

e.display();

}

1. WAP to display first 100 odd numbers ??

#include<iostream>

using namespace std;

class Odd

{

int num;

public: void display()

{

cout<<"1st Hundered odd Numbers are:\n";

for(num=1;num<=200;num++)

{

if(num%2==1)

cout<<num;

}}

void display2()

{

cout<<endl<<"1st Hundered Even Numbers are:\n";

for(num=1;num<=200;num++)

{

if(num%2==0)

cout<<num;

}}

};

int main()

{

Odd o;

o.display();

o.display2();

}

1. WAP to display the table of any number ??

#include<iostream>

using namespace std;

class Table

{

int n1,n2;

public: void display()

{

cout<<"Fourth Table is:\n";

cin>>n2;

for(n1=1;n1<=10;n1++)

{

cout<<n2<<"\*"<<n1<<"="<<n1\*n2<<endl;

}}};

int main()

{

Table t;

t.display();

}

1. WAP to display the sum of first 10 natural number(1 2 3…) ??

#include<iostream>

using namespace std;

class Natural

{

int num;

public: void display()

{

cout<<"1st Ten Natural Numbers are:\n";

for(num=1;num<=10;num++)

{

cout<<num<<endl;

}}};

int main()

{

Natural n;

n.display();

}

1. WAP to display Characters from A to Z Using Loop ??

#include<iostream>

using namespace std;

class Alphabets

{

char ch;

public: void display()

{

cout<<"Alphabets are:\n";

for(ch='A';ch<='Z';ch++)

{

cout<<ch;

}}};

int main()

{

Alphabets a;

a.display();

}

1. WAP to display the series from 10 to 1 in reverse order ??

#include<iostream>

using namespace std;

class Natural\_R

{

int num;

public: void display()

{

cout<<"Reverse Numbers are:\n";

for(num=10;num>=1;num--)

{

cout<<num<<endl;

}}};

int main()

{

Natural\_R n;

n.display();

}

1. WAP to display the reverse of a number ??

#include<iostream>

using namespace std;

class Reverse\_num

{

int n,reverse=0,rem;

public: void display()

{

cout<<"Enter a number: ";

cin>>n;

while(n!=0)

{

rem=n%10;

reverse=reverse\*10+rem;

n/=10;

}

cout<<"Reversed Number: "<<reverse<<endl;

}};

int main()

{

Reverse\_num n;

n.display();

}

1. WAP to check whether a no is palindrome or not ??

#include<iostream>

using namespace std;

class Palindrome

{

int n,r,sum=0,temp;

public: void check()

{

cout<<"Enter a number ";

cin>>n;

temp=n;

while(n>0)

{

r=n%10;

sum=(sum\*10)+r;

n=n/10;

}

if(temp==sum)

{

cout<<"Number is palindrome ";}

else{

cout<<"not a palindrome";

}

}};

int main()

{

Palindrome p;

p.check();

}

1. WAP to calculate the power of any base ??

#include<iostream>

using namespace std;

class Base

{

int base,exponent,i;

long power=1;

public: void calculate()

{

cout<<"Enter base\n"<<"Enter Exponent\n";

cin>>base>>exponent;

for(i=1;i<=exponent;i++)

{

power=power\*base;

}

cout<<endl<<base<<"^"<<exponent<<":"<<power;

}

};

int main()

{

Base b;

b.calculate();

}

1. WAP to check whether the number is armstrong number or not ??

#include <iostream>

using namespace std;

class Armstrong

{

int n,r,sum=0,temp;

public: void check()

{

cout<<"Enter the Number";

cin>>n;

temp=n;

while(n>0)

{

r=n%10;

sum=sum+(r\*r\*r);

n=n/10;

}

if(temp==sum){

cout<<"Armstrong Number"<<endl;}

else{

cout<<"Not Armstrong Number"<<endl;}

}};

int main()

{

Armstrong a;

a.check();

}

1. WAP to calculate factorial of any number without recursion ??

#include <iostream>

using namespace std;

class Factorial

{

public: void calculate()

{

int i,fact=1,number;

cout<<"Enter any Number: ";

cin>>number;

for(i=1;i<=number;i++)

{

fact=fact\*i;

cout<<fact<<endl;

}}};

int main()

{

Factorial f;

f.calculate();

}

1. WAP to calculate the sum of digits in a number ??

#include <iostream>

using namespace std;

int main()

{

int n,sum=0,m;

cout<<"Enter a number: ";

cin>>n;

while(n>0)

{

m=n%10;

sum=sum+m;

n=n/10;

}

cout<<"Sum is= "<<sum<<endl;

return 0;

}

1. WAP to count the number of digits in a number.??

#include <iostream>

using namespace std;

int main()

{

int num;

int count = 0;

cout << "Enter any number : ";

cin >> num;

while(num!=0)

{

count++;

num=num/10;

}

cout << endl << "Total digits are " <<num<<count;

return 0;

}

1. WAP to calculate factorial of any number with recursion ??

#include<iostream>

using namespace std;

int fact(int num)

{

if(num <= 1)

return(1);

else

return(num \* fact(num-1));

}

int main ()

{

int num;

cout << "Enter a number:\t ";

cin >> num;

cout << "\nFactorial of " <<num<<" is "<<fact(num)<<endl;

return 0;

}

1. WAP to display the Fibonacci series( 0 1 1 2 3 5 8 13 21 34)

#include <iostream>

using namespace std;

int main() {

int n1=0,n2=1,n3,i,number;

cout<<"Enter the numbers: ";

cin>>number;

cout<<n1<<" "<<n2<<" ";

for(i=2;i<number;++i)

{

n3=n1+n2;

cout<<n3<<" ";

n1=n2;

n2=n3;

}

return 0;

}

1. WAP to check whether the number is prime or not ??

#include <iostream>

using namespace std;

int main() {

int i, n;

bool isPrime = true;

cout << "Enter a positive integer: ";

cin >> n;

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

{

isPrime = false;

}

else {

for (i = 2; i <= n / 2; ++i) {

if (n % i == 0) {

isPrime = false;

break;

}

}

}

if (isPrime)

cout << n << " is a prime number";

else

cout << n << " is not a prime number";

return 0;

}

1. WAP to get the prime numbers between a given range ??

#include <iostream>

using namespace std;

int main() {

int low, high, i;

bool isPrime = true;

cout << "Enter two numbers: ";

cin >> low >> high;

cout << "Prime numbers between " << low << " and " << high << " are: " << endl;

while (low < high) {

isPrime = true;

if (low == 0 || low == 1) {

isPrime = false;

}

else {

for (i = 2; i <= low / 2; ++i) {

if (low % i == 0) {

isPrime = false;

break;

}

}

}

if (isPrime)

cout << low << " ";

++low;

}

return 0;

}

20. WAP to display Floyd Triangle ??

#include <iostream>

using namespace std;

class Floyd

{

public: void display()

{

int n,i,c,a=1;

cout<<"Enter the number";

cin>>n;

for (i = 1; i <= n; i++)

{

for (c = 1; c <= i; c++)

{

cout<<a;

a++;

}

cout<<endl;

}

}};

int main()

{

Floyd f;

f.display();

}

1. Note- Floyd Triangle is like 1 2 3 4 5 6 7 8 9 10 WAP to display the reverse of String. WAP to check whether the String Is palindrome or not