Basic c programs

1. Average

#include<iostream>

using namespace std;

int main()

{

int a,b,c,n;

cout<<"enter a value a,b,c\n";

cin>>a>>b>>c;

n=(a+b+c)/3;

cout<<n;

return 0;

}

2.arithmatic

#include<iostream>

using namespace std;

int main()

{

int a,b,c,d,e,f;

float g;

cout<<"enter a,b,c value\n";

cin>>a>>b>>c;

d=a+b+c;

e=a-b-c;

f=a\*b\*c;

g=(c/(b/a));

cout<<d<<"\n";

cout<<e<<"\n";

cout<<f<<"\n";

cout<<g<<"\n";

return 0;

}

3.Vowel-cons

#include<iostream>

using namespace std;

int main()

{

char ch;

cout<<"enter a character\n";

cin>>ch;

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

{

cout<<"the character is a vowel";

}

else

{

cout<<"the character is a consonent";

}

return 0;

}

Nearest

#include<iostream>

#include<cmath>

using namespace std;

int main()

{

int b,c;

float a;

cout<<"enter a float value\n";

cin>>a;

b=round(a);

c=floor(a);

cout<<b<<"\n";

cout<<c;

}

Swap

#include<iostream>

using namespace std;

int main()

{

int a,b,c;

cout<<"enter a number\n";

cin>>a>>b;

c=a;

a=b;

b=c;

cout<<a<<"\n"<<b<<"\n";

}

Max terinary operator

#include<iostream>

using namespace std;

int main()

{

int a,b,c;

cout<<"Enter a number: ";

cin>>a;

cout<<"\nEnter a number: ";

cin>>b;

cout<<"\nEnter a number: ";

cin>>c;

bool d=(a>b && a>c)? true:false;

if(d)

{

cout<<"\na is greatest";

}

else

{

bool e=(b>c)? true:false;

if(e)

{

cout<<"\nb is greatest";

}

else

{

cout<<"\nc is greatest";

}

}

}

Equal terinary

#include<iostream>

using namespace std;

int main()

{

int a,b;

cout<<"enter a values\n";

cin>>a>>b;

bool c=(a==b)?true:false;

if(c)

{

cout<<"equal";

}

else

{

cout<<"not equal";

}

}

Fact

#include<iostream>

using namespace std;

int main()

{

int n,f=1,i;

cout<<"enter value\n";

cin>>n;

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

{

f=f\*i;

}

cout<<f;

}

Fibonacci

#include<iostream>

using namespace std;

int main()

{

int n,a=0,b=1,c,t;

cout<<"enter a values\n";

cin>>n;

cout<<a<<"\n"<<b<<"\n";

t=3;

while(t<=n)

{

c=a+b;

cout<<c<<"\n";

a=b;

b=c;

t++;

}

}

Prime

#include<iostream>

using namespace std;

int main()

{

int a,i,n,flag=0;

cout<<"ENTER A NUMBERS : ";

cin>>a;

n=a/2;

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

{

if(a%i==0)

{

flag=1;

cout<<"\nGIVEN NUMBER IS NOT PRIME";

break;

}

}

if(flag==0)

{

cout<<"\nGIVEN NUMBER IS PRIME";

}

}

Palindrome

#include<iostream>

using namespace std;

int main()

{

int n,d,r=0,a;

cout<<"enter value\n";

cin>>a;

n=a;

while(n!=0)

{

d=n%10;

r=(r\*10)+d;

n=n/10;

}

if(a==r)

{

cout<<"palindrome";

}

else

{

cout<<"not a palindrome";

}

}

Sum of all

#include<iostream>

using namespace std;

int main()

{

int a,n,rem,rev=0;

cout<<"Enter a number : ";

cin>>a;

n=a;

while(n!=0)

{

rem=n%10;

rev+=rem;

n=n/10;

}

cout<<"\nSum of all Digits : "<<rev;

return 0;

}

Gcd

#include<iostream>

using namespace std;

int main();

{

int a,b,r;

cout<<"enter value";

cin>>a>>b;

while(b!=0)

{

r=a%b;

a=b;

b=r;

}

cout<<a;

}

Perfect

#include<iostream>

using namespace std;

int main()

{

int n,i,j,s=0;

cout<<"enter a value\n";

cin>>n;

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

{

if(n%i==0)

{

s=s+i;

}

}

if(s==n)

{

cout<<"perfect no";

}

else

{

cout<<"not perfect no";

}

}

Harshad

#include<iostream>

using namespace std;

int main()

{

int a,n,r,rev=0,d;

cout<<"enter a value\n";

cin>>a;

n=a;

while(n!=0)

{

r=n%10;

rev=rev+r;

n=n/10;

}

if(a%rev==0)

{

cout<<"harshed no";

}

else

{

cout<<"not harshed no";

}

}

Happy no

#include<iostream>

using namespace std;

int SumOfSquNum(int givno)

{

int SumOfSqr = 0;

while (givno)

{

SumOfSqr += (givno % 10) \* (givno % 10);

givno /= 10;

}

return SumOfSqr;

}

bool checkHappy(int chkhn)

{

int slno, fstno;

slno = fstno = chkhn;

do

{

slno = SumOfSquNum(slno);

fstno = SumOfSquNum(SumOfSquNum(fstno));

}

while (slno != fstno);

return (slno == 1);

}

int main()

{

int hyno;

cout << " Input a number: ";

cin >> hyno;

if (checkHappy(hyno))

cout<<"\n"<<hyno<< " is a Happy number\n";

else

cout<<"\n"<<hyno<< " is not a Happy number\n";

}

Strong

#include<iostream>

using namespace std;

int main()

{

int sum=0,n,f,a,rem=0,i;

cout<<"ENTER THE NUMBER : ";

cin>>a;

n=a;

while(n!=0)

{

rem=n%10;

f=1;

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

{ f=f\*i;

}

n=n/10;

sum+=f;

}

if(sum==a)

{

cout<<"\nIT IS A STRONG NUMBER ";

}

else

{

cout<<"\nIT IS NOT A STRONG NUMBER ";

}

}

buzz

#include<iostream>

using namespace std;

int main()

{

int a,rem=0,n;

cout<<"ENTER A NUMBER : ";

cin>>a;

n=a;

rem=n%10;

if(a%7==0 || rem==7)

{

cout<<"\nIT IS A BUZZ NUMBER ";

}

else

{

cout<<"\nIT IS A NOT BUZZ NUMBER ";

}

}

Neon

#include<iostream>

using namespace std;

int main()

{

int a,n,sqr,s=0,r=0;

cout<<"enter value\n";

cin>>a;

sqr=a\*a;

n=sqr;

while(n!=0)

{

r=n%10;

s=s+r;

n=n/10;

}

if(a==s)

{

cout<<"neon no";

}

else

{

cout<<"not neon no";

}

}

Abundant

#include<iostream>

using namespace std;

int main()

{

int sum=0,n,i;

cout<<"ENTER THE NUMBER : ";

cin>>n;

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

{

if(n%i==0)

{

sum+=i;

}

}

if(sum>n)

cout<<"\nABUNDANT NUMBER";

else

cout<<"\nNOT A ABUNDANT NUMBER";

return 0;

}

Narasstic

#include<iostream>

#include<cmath>

using namespace std;

int main()

{

int num,y,x,rem,n=0,result=0,power;

cout<<"ENTER INTEGER : ";

cin>>num;

x=num;

while(x!=0)

{

x/=10;

++n;

}

y=num;

while(y!=0)

{

rem=y%10;

power=round(pow(rem, n));

result+=power;

y/=10;

}

if(result==num)

{

cout<<"\nGIVEN NUMBER IS A NARCISSISTIC NUMBER ";

}

else

{

cout<<"\nGIVEN NUMBER IS NOT A NARCISSISTIC NUMBER ";

}

}

Rtp pattern number

#include<iostream>

using namespace std;

int main()

{

int n,i,j;

cout<<"enter a rows\n";

cin>>n;

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

{

for(j=i;j>=1;j--)

{

cout<<" "<<i;

}

cout<<"\n";

}

}

Rtp pattern star

#include<iostream>

using namespace std;

int main()

{

int n,i,j;

cout<<"enter a value\n";

cin>>n;

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

{

for(j=i;j>=1;j--)

{

cout<<" \*";

}

cout<<"\n";

}

}

Pyramid no

#include<iostream>

using namespace std;

int main()

{

int i,j,a;

cout<<"ENTER THE NUMBER : ";

cin>>a;

for(i=0;i<=a;i++)

{

for(j=0;j<i;j++)

{

cout<<" "<<i;

}

cout<<"\n";

}

}

Reverse

#include<iostream>

using namespace std;

int main()

{

int a,n,rem,rev=0;

cout<<"ENTER THE NUMBER :";

cin>>a;

n=a;

while(n!=0)

{

rem=n%10;

rev=rev\*10+rem;

n=n/10;

}

cout<<"\nREVERSED NUMBER IS : "<<rev;

}

Occurances

#include<iostream>

using namespace std;

int main()

{

int a[100],n,i,c,d=0;

cout<<"enter value\n";

cin>>n;

cout<<"enter no\n";

for(i=0;i<n;i++)

{

cin>>a[i];

}

cout<<"search no\n";

cin>>c;

for(i=0;i<n;i++)

{

if(c==a[i])

{

d=d+1;

}

}

cout<<d;

}