01. Write a C++ program to check Amstrong number

#include <iostream>

using namespace std;

int main()

{

int n,r,sum=0,temp;

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;

return 0;

}

02. Write a program to matrix multiplication

#include <iostream>

using namespace std;

int main()

{

int a[10][10],b[10][10],mul[10][10],r,c,i,j,k;

cout<<"enter the number of row=";

cin>>r;

cout<<"enter the number of column=";

cin>>c;

cout<<"enter the first matrix element=\n";

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

{

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

{

cin>>a[i][j];

}

}

cout<<"enter the second matrix element=\n";

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

{

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

{

cin>>b[i][j];

}

}

cout<<"multiply of the matrix=\n";

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

{

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

{

mul[i][j]=0;

for(k=0;k<c;k++)

{

mul[i][j]+=a[i][k]\*b[k][j];

}

}

}

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

{

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

{

cout<<mul[i][j]<<" ";

}

cout<<"\n";

}

return 0;

}

03. Write a C++ program to generate a Fibonacci series

#include <iostream>

using namespace std;

int main()

{

int a=0,b=1,i,c,n,j;

cout<<"Enter the limit: ";

cin>>n;

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

{

a=0;

b=1;

cout<<b<<"\t";

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

{

c=a+b;

cout<<c<<"\t";

a=b;

b=c;

}

cout<<"\n";

}

return 0;

}

04. Write a C++ program to calculate the number of vowels, consonants, digits and white spaces

#include <iostream>

using namespace std;

int main()

{

char line[150];

int vowels, consonants, digits, spaces;

vowels = consonants = digits = spaces = 0;

cout << "Enter a line of string: ";

cin.getline(line, 150);

for(int i = 0; line[i]!='\0'; ++i)

{

if(line[i]=='a' || line[i]=='e' || line[i]=='i' ||

line[i]=='o' || line[i]=='u' || line[i]=='A' ||

line[i]=='E' || line[i]=='I' || line[i]=='O' ||

line[i]=='U')

{

++vowels;

}

else if((line[i]>='a'&& line[i]<='z') || (line[i]>='A'&& line[i]<='Z'))

{

++consonants;

}

else if(line[i]>='0' && line[i]<='9')

{

++digits;

}

else if (line[i]==' ')

{

++spaces;

}

}

cout << "Vowels: " << vowels << endl;

cout << "Consonants: " << consonants << endl;

cout << "Digits: " << digits << endl;

cout << "White spaces: " << spaces << endl;

return 0;

}

05. Write C++ program to print a Floyd's triangle

#include <iostream>

using namespace std;

int main()

{

int rows, num = 1;

cout << "Enter number of rows: ";

cin >> rows;

for(int i = 1; i <= rows; i++)

{

for(int j = 1; j <= i; j++)

{

cout << num << " ";

num++;

}

cout << endl;

}

return 0;

}