Please do copy and test my code as you see fit.

Q.1)

#include <iostream>

using namespace std;

int main()

{

int n,i,j;

cout<<"enter height of triangle of stars desired";

cin>>n;

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

{

if(i==1)

cout<<"\*"<<endl;

if(i==2)

cout<<"\*\*"<<endl;

if(i==3)

cout<<"\*\*\*"<<endl;

if(i==4)

cout<<"\*\*\*\*"<<endl;

if(i==5)

cout<<"\*\*\*\*\*"<<endl;

if(i==6)

cout<<"\*\*\*\*\*\*"<<endl;

}

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

{

if(j==1)

cout<<"\*"<<endl;

if(j==2)

cout<<"\*\*"<<endl;

if(j==3)

cout<<"\*\*\*"<<endl;

if(j==4)

cout<<"\*\*\*\*"<<endl;

if(j==5)

cout<<"\*\*\*\*\*"<<endl;

}

return 0;

}

Q.2)

#include <iostream>

#include <math.h>

using namespace std;

int main()

{

int x;

float y;

long double z;

cout<<"enter a number for which sine/cosine/tangent needs to be calculated"<<endl;

cin>>y;

cout<<"enter the respective number below to calculate \n1-sine \n2-cosine \n3-tangent"<<endl;

switch (x)

{

case 1:

z=sin(y);

cout<<"the sine of \t"<<y<<"\tis\t"<<z<<endl;

break;

case 2:

z=cos(y);

cout<<"the cosine of\t"<<y<<"\tis\t"<<z<<endl;

break;

case 3:

z=tan(y);

cout<<"the tangent of\t"<<y<<"\tis\t"<<z<<endl;

break;

default:

cout<<"invalid selection"<<endl;

}

return 0;

}