**Question # 1**

Create a pyramid shape triangle using asterisk(\*) as shown in the screen shot, after taking the following inputs

* Number of rows
* Backgroud character

Hint : Use for loop for this

Screen shot



**Solution**

**#include <iostream>**

**using namespace std;**

**int main()**

**{**

**while (1)**

**{**

**cout << "Enter no of rows ( 0 to quit ) : " << endl;**

**int Number\_of\_rows;**

**cin >> Number\_of\_rows;**

**if (Number\_of\_rows == 0)**

**break;**

**string background\_character = "#";**

**cout << "Enter Background : " << endl;**

**cin >> background\_character;**

**for (int i = 1; i <= Number\_of\_rows; i++)**

**{**

**for (int j = Number\_of\_rows - i + 1; j >= 1; j--)**

**{**

**cout << background\_character;**

**}**

**for (int j = 2 \* i - 1; j >= 1; j--)**

**{**

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

**}**

**for (int j = Number\_of\_rows - i + 1; j >= 1; j--)**

**{**

**cout << background\_character;**

**}**

**cout << endl;**

**}**

**}**

**return 0;**

**}**

**Question # 2**

Create a triangle as shown in the following screen shot, after taking number of rows (only odd number for rows) as user input

Screen shot



**Solution**

#include <iostream>

using namespace std;

int main()

{

while (1)

{

cout << "Enter an odd number for rows ( 0 to quit ) : " << endl;

int Number\_of\_rows;

cin >> Number\_of\_rows;

if (Number\_of\_rows == 0)

break;

if (Number\_of\_rows % 2 == 0)

{

cout << "You have not entered an odd number of rows \n";

continue;

}

for (int i = 1; i <= Number\_of\_rows / 2; i++)

{

for (int j = i \* 2 - 1; j >= 1; j--)

{

cout << "\*";

}

cout << endl;

}

for (int i = 1; i <= Number\_of\_rows; i++)

{

cout << "\*";

}

cout << endl;

for (int i = Number\_of\_rows / 2; i >= 1; i--)

{

for (int j = i \* 2 - 1; j >= 1; j--)

{

cout << "\*";

}

cout << endl;

}

}

return 0;

}

**Submission Guidelines:**

You need to write and test your code in Visual Studio, and then copy the code in to this word document. Make sure your code is well commented and working properly to get full marks.