

FIRSTNAME, LASTNAME (PRINT IN UPPERCASE):

STUDENT ID (e.g. 123456789):

**INSTRUCTIONS:**

- Write a program that will prompt for an increment value followed by another prompt for a number of terms. Assume the inputs will be integers, but if either one is less than 1, simply print Bad input. Assuming valid input, print out a triangle of integers with 10 rows. The starting integer will always be 1 and the next integer will be the previous integer plus the increment value. Once you have printed out the specified number of terms, restart the pattern. Printing out a triangle means row 1 will have 1 number, row 2 will have 2 numbers, and row  $n$  will have  $n$  numbers.

Here are 3 different sample runs (with user input in *italic* and output in **bold** just to make it easier to understand how it works).

<b>Sample run #1</b>
<b>Enter increment amount:</b> <i>5</i>
<b>Enter number of terms:</b> <i>0</i>
<b>Bad input</b>

<b>Sample run #2</b>
<b>Enter increment amount:</b> <i>5</i>
<b>Enter number of terms:</b> <i>7</i>
<b>1</b>
<b>6 11</b>
<b>16 21 26</b>
<b>31 1 6 11</b>
<b>16 21 26 31 1</b>
<b>6 11 16 21 26 31</b>
<b>1 6 11 16 21 26 31</b>
<b>1 6 11 16 21 26 31 1</b>
<b>6 11 16 21 26 31 1 6 11</b>
<b>16 21 26 31 1 6 11 16 21 26</b>

<b>Sample run #3</b>
<b>Enter increment amount:</b> <i>3</i>
<b>Enter number of terms:</b> <i>100</i>
<b>1</b>
<b>4 7</b>
<b>10 13 16</b>
<b>19 22 25 28</b>
<b>31 34 37 40 43</b>
<b>46 49 52 55 58 61</b>
<b>64 67 70 73 76 79 82</b>
<b>85 88 91 94 97 100 103 106</b>
<b>109 112 115 118 121 124 127 130 133</b>
<b>136 139 142 145 148 151 154 157 160 163</b>

- Notice no repeats in sample run 3 since there are more terms in the sequence than number needed in a 10 row triangle.

**WRITE THE CODE ON THE BACK**

```
import java.util.Scanner;  
public class Q2 {  
    public static void main(String[] args) {
```

```
    }
```

```
}
```