

## CSC 160 WINTER 16 LAB 3-1

PROFESSOR GODFREY C. MUGANDA  
NORTH CENTRAL COLLEGE

### 1. A TRIANGLE MADE FROM STARS

Write a Java Program that asks the user to enter a positive integer  $n$ , reads it in, and uses stars to draw a right triangle that would be the left bottom half of a square that is partitioned with a line from its top-left corner to its lower-right corner:

```
Enter a positive integer: 7
Bottom Left Half of a square:
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
```

### 2. ANOTHER TRIANGLE MADE FORM STARS

Add some more code to your program to create a triangle that is the top left half of a square partitioned by a line from the top-right corner to the lower-left corner:

```
Enter a positive integer: 8
Bottom Left Half of a square:
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * * *

Top Left Half of a square:
* * * * * * * *
* * * * * * *
* * * * * *
* * * * *
* * * *
* * *
* *
*
```

## 3. WEDGE

Add code code that draws a wedge of the size entered. If a number  $n$  is entered, there will be  $2n - 1$  rows of stars drawn. The number of stars in each row will increase from 1 to  $n$ , and then decrease back to 1:

Enter a positive integer: 5

Bottom Left Half of a square:

```
*
* *
* * *
* * * *
* * * * *
```

Top Left Half of a square:

```
* * * * *
* * * *
* * *
* *
*
```

Here is a wedge:

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

## 4. OUTLINE OF A SQUARE

Finally, draw an outline of the square of the specified size. All in all a sample interaction of your program with the user might look like this

Enter a positive integer: 6

Bottom Left Half of a square:

```
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * * *
```

Top Left Half of a square:

```
* * * * * *
* * * * *
* * * *
* * *
* *
*
```

\*

Here is a wedge:

```
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * *
* * * *
* * *
* *
```

Here is an outline of a square:

```
* * * * *
*           *
*           *
*           *
*           *
* * * * *
```

Due Date is Wednesday of Week 3.