

## CSC 15, Chapter 2 lab

In the second part of the assignment, you are going to generate output that looks like the following:

```
      /\*\
     /\*\
    /\*\
   /\*\
  /\*\
 /\*\
+*==*==*==*==*+
|..\/\....\/\..|
|..\/\..\/\..|
|\/\\/\\/\\/\|
|\/\\/\\/\\/\|
|..\/\..\/\..|
|..\/\....\/\..|
+*==*==*==*==*+
|\/\\/\\/\\/\|
|..\/\..\/\..|
|..\/\....\/\..|
|..\/\....\/\..|
|..\/\..\/\..|
|\/\\/\\/\\/\|
+*==*==*==*==*+
      /\*\
     /\*\
    /\*\
   /\*\
  /\*\
 /\*\
/\*\
```

You are to exactly reproduce this output. The various subfigures in the middle of this output have a height of 3. These subfigures have the property that their height determines their width, so there is only one size variable. You are to use a class constant to make it possible to change a single number in one place in the program to have it produce a corresponding figure of a different size.

This assignment is meant to give you practice with the constructs from chapters 1 and 2. This will require you to create nested for loops with print and println statements that use the class constant. You may use constructs from chapter 3, although you are not required to do so and you will receive no extra credit for doing so. You may not use any programming constructs that are not in chapters 1 through 3 of the textbook.

You should continue to use static methods to structure your solution. You should try to avoid significant redundancy and you should structure your program in such a way that the methods match the structure of the output itself. You are required to properly indent your code and will lose points if you make indentation mistakes. You should localize variables whenever possible.

You should once again include a comment at the beginning of your class file with basic information and a description of what the program does. You should also include a comment on

each individual method describing what it does. Name your file DrawRocket.java and turn in your program electronically through the “homework” link on the class web page.

On any given execution your program will produce just one version of this figure, but it should be possible to change the value of the program constant to have your program produce a figure of a different size. For example, with subfigures of height 5, the output should look like this:

```
      /\
     /\
    /\
   /\
  /\
 /\
/\
+*+*+*+*+*+*+*+*+
|.../\...../\...|
|.../\...\...../\...|
|..\/\...\.....\/\...|
|.\/\...\.....\/\...|
|\/\...\...\...\|
|\...\...\...\|
|.\/\...\.....\/\...|
|..\/\...\.....\/\...|
|...\/\...\.....\/\...|
|.....\/\.....\/\...|
+*+*+*+*+*+*+*+*+
|\...\...\...\|
|.\/\...\.....\/\...|
|..\/\...\.....\/\...|
|...\/\...\.....\/\...|
|.....\/\.....\/\...|
|.....\/\.....\/\...|
|.\/\...\.....\/\...|
|.\/\...\.....\/\...|
|\/\...\...\...\|
+*+*+*+*+*+*+*+*+
      /\
     /\
    /\
   /\
  /\
 /\
/\
```