

# Challenge - Rectangles

1 Hour

## The Assignment

In this challenge you will write a Java program to print out rectangular shapes to the console. READ ALL INSTRUCTIONS. Don't forget the *Tips*. You may use your TRAINS for Reference. You may not use any other reference materials (NO GOOGLE, NO STACKOVERFLOW etc.). You have one hour. You have one hour.

```
***          $$$$$$          ##
***          $$$$$$          ##
***          $$$$$$          ##
```

## Rectangles

Write the class `Rectangles` in the file `Rectangles.java`. The main method of the `Rectangles` class must:

1. Take a non-zero positive integer as input from the user with the prompt "Please enter a width:"
2. Take another non-zero positive integer as input from the user with the prompt "Please enter a height:"
3. Print out a shape of symbols with the given width and height.

The rectangles should be made of:

- stars (\*) if the shape has the same width and height (i.e it is a square)
- dollar signs (\$) if the rectangle is wider than it is tall.
- hash signs (#) if the rectangle is taller than it is wide.

## Expected Output

### Example 1: Equal width and height

```
Please enter a width:
3
Please enter a height
3
***
***
***
```

### Example 2: Height is greater than width

```
Please enter a width:
3
Please enter a height
4
###
###
###
###
```

### Example 3: Width is greater than height

```
Please enter a width:
7
Please enter a height:
3
$$$$$$
$$$$$$
$$$$$$
```

## Submitting to the Autograder

1. To be successful, your output must match the Autograder's expectations exactly.
2. Make sure that your program compiles and runs without any errors before running it through the autograder.
3. Create a **zip** file containing the **Rectangles.java** only.
4. Upload the **zip** file to Athena.

## Tips

- You can use `Scanner.nextInt()` to get integer input from the user.
- You can use the `System.out.print` method to print a string or character *without* a terminating newline character.
- Remember that your class names needs to be exactly the same as the name of the files in which they were defined.
- Make sure that all of your input and output exactly matches the strings shown in the examples.
- Do not include any package declarations in your submission file