

Exercises

- Write a program **Square.java** that declares and initializes a variable `n` (with $n \geq 2$) and prints out a two dimensional `n`-by-`n` triangular pattern as shown below (where `n=6`).

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```

- Write a program **Pattern.java** that draws the following output (see below). You must use for-loops (and nested for-loops) where necessary and use static methods to show structure and eliminate redundancy in your solution.



- Write a program **ASCIICode.java** that prints the ASCII code of all the letters from 'z' to 'a' and from 'F' to 'X'.
- Write a program **Diamond.java** that defines an integer variable `size` and a character variable `insideDiamond`, and then draws a diamond shape using `size` and `insideDiamond`. In the examples below the `insideDiamond` variable is initialized to '+', and the `size` variable is initialized to 4, 5 and 6 respectively.

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size = 4	size = 5	size = 6

Submission Instructions and Guidelines

- Your submission must consist of a single zip folder that contains four .java files only (**Square.java**, **Pattern.java**, **ASCIICode.java**, and **Diamond.java**). No additional files should exist in the .zip folder.
- Give meaningful names to your methods and variables in your code.
- Include a comment at the beginning of your program with basic information about yourself and a description of the program. Include also a comment at the start of each method.
- The name of the zip file must adhere to the following naming convention *s#_A4_netid*, where # stands for your section number (between 1 and 12) and *netid* stands for your AUBnet user name. For example, if your AUBnetid is abc65 and you are in section 4, you should submit the following file: *s4_A4_abc65.zip*. The zip files will be processed automatically so please make sure you use this naming convention.
- **Failing to follow these guidelines will result in deducting marks form your grade.**