

# Java-Loops

## Exercise 1 – Range of integers between two integers

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Write a Java program that asks the user to input two integers and lists all integers between the two in proper order.

### Example 1:

Please input two integers: **3** **9**

{3, 4, 5, 6, 7, 8, 9}

### Example 2:

Please input two integers: **4** **-2**

{-2, -1, 0, 1, 2, 3, 4}

## Exercise 2 – Multiplication table

Write a Java program that asks the user to input a positive integer N between 1 and 9 then prints the multiplication table up to N.

### Example

Please input an integer between 1 and 9: **5**

*	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

### Exercise 3 – Max, Min & Average

Write a Java program that reads 10 integers then displays the maximum, minimum and average numbers.

#### Example

Please input 10 integers: **1 2 3 4 5 -1 -2 -3 -4 -5**

Max: 5

Min: -5

Average: 0.0

### Bonus – Guessing Game

Write and test a java program that picks a number between 0 and 9 and gives the user 3 chances to guess it. If the user doesn't guess the number correctly in 3 attempts then the program should display the chosen number and exit. (integers only).

#### Example1:

I'm thinking about a number between 0 and 9. Can you guess it? (3 attempt(s) left): **5**

Sorry. Wrong number.

I'm thinking about a number between 0 and 9. Can you guess it? (2 attempt(s) left): **3**

Sorry. Wrong number.

I'm thinking about a number between 0 and 9. Can you guess it? (1 attempt(s) left): **8**

Sorry. Wrong number.

The correct number is 9.

#### Example2:

I'm thinking about a number between 0 and 9. Can you guess it? (3 attempt(s) left): **5**

Congratulations! That was the correct number.

**Hint:**

To pick a random number between 0 and 9 import the random number generator (`import java.util.Random;`) then create an instance of the generator (`Random r = new Random();`) then finally get a random number (`int myRandomNumber = r.nextInt(10);`).