

You are allowed to use internet resources but you're not allowed to see other participants' code.  
The evaluation has a duration of 1 hour and a total of 2 points.

## Exercise 1 (1 point)

Derek is playing the number mirror game with Hansel. First Derek writes a number and Hansel writes the same number but written completely backwards.

Develop the code that Hansel uses in order to write the number backwards.

Follow the instructions below:

- You need the following classes: *NumberMirror* and *NumberMirrorApplication*.
- The *NumberMirror* has the *mirror* method that receives a *number* and returns it written backwards.
- In the *NumberMirrorApplication* class *main* method, ask the user for a number, create a *NumberMirror*, use it to find its mirror number and display both.

Hints:

- Assume that number that the user writes numbers within the Integer size limits.
- Maybe some Java traits can help you solve the problem easily, if you are creative enough to combine them.
- Keep it simple stupid. Don't overdo things, just stick to what the exercise asks for.

## Exercise 2 (1 point)

Derek and Hansel want to take the mirror number game to the next level. When finding out the mirror number, they also want to add 1 to every number before they write them backwards. If the number is 9 then they just write a 0.

Develop the code that Hansel uses in order to mirror the number in this special way.

Follow the instructions below:

- Reuse the *NumberMirror* from exercise 1.
- Reuse the *NumberMirrorApplication* from exercise 1.
- Add the *specialMirror* method to the *NumberMirror* class that receives a *number* and returns the special mirror version of it.
- In the *NumberMirrorApplication* class *main* method, apply the special mirror to the same number it was previously requested and display it as well.

Hints:

- Maybe some Java traits can help you solve the problem easily, if you are creative enough to combine them.
- Keep it simple stupid. Don't overdo things, just stick to what the exercise asks for.