HW - Matrix

- Create a class called Matrix3 (**without** main function), that takes as constructor argument 2-dimensional integer array (int[][]) and checks its size (should be 3x3). If size does not match, perform following:

  throw new IllegalArgumentException("Wrong size!");

- Class should offer following functionality:

1) Print internal data (int[][]);

2) Calculate determinant;

3) Transpose : The transpose of a matrix is a new matrix whose rows are the columns of the original. (This makes the columns of the new matrix the rows of the original). Here is a matrix and its transpose:

$$\begin{pmatrix} 5 & 4 & 3 \\ 4 & 0 & 4 \\ 7 & 10 & 3 \end{pmatrix}^{T} = \begin{pmatrix} 5 & 4 & 7 \\ 4 & 0 & 10 \\ 3 & 4 & 3 \end{pmatrix}$$

HW - Matrix

- Create calling class MatrixLauncher **with** main function inside. Then :

1) Create 3x3 integer array with initial values
2) Create Matrix3 class instance and pass array as a parameter
3) Call print internal state function
4) Call calculate determinant function and save result in separate variable, then print it;
5) Call transpose funtion
6) Call print internal state function and assure that matrix has really transposed.