

OOP using JAVA – Lab 4

A polynomial is defined by the equation: ax^2+bx+c . (suppose a, b, and c are not zeros)

✓ Write the class **Polynom** described as follows:

- Attributes (private):
 - a : double
 - b : double
 - c : double
- Methods (public):
 - The constructor `Polynom(double,double,double)` that sets the values of the coefficients a,b, and c.
 - `asString : String`
returns a string that represents the polynomial in the format ax^2+bx+c
example (in case $a=1$, $b=-2$, $c=1$) the function returns : x^2-2x+1
 - `Roots : double []`
returns an array of two float values which are the roots of the polynomial.
Use the value (**Double.NaN**) in case there is no root(s).

✓ Write the class `PolyDriver` that contains a main function and allows to reads a polynomial (by asking the user to enter the coefficients' values), computes and displays its roots as following:

The polynomial x^2-2x+1 has the double root -1.

Bonus: Write in the driver a method that takes two polynomials, identifies the one that has the maximum root value, and adjust its first coefficient (a) is to be that of the other polynomial.

PS: the attributes should remain private. ;) ... so, what to do?

Test this method in your main