1. Define and implement the class Array representing an array of real numbers with the following public methods:
   - the constructor with the size of the array as a parameter,
   - the copy-constructor,
   - the destructor,
   - size – returning the current size of the array,
   - read – reading the contents of the array from the user,
   - print – printing the contents of the array,
   - avg – returning the arithmetic mean of the values in the array,
   - min – returning the smallest value in the array,
   - max – returning the greatest value in the array,
   - reverse – reversing the order of the values in the array,
   - sort – returning a sorted copy of the array, of the sorting order depending on the value of the boolean parameter (true means the ascending order).

   Write a program which tests all the class capabilities.

2. Define and implement two classes – the Point and the Line being geometric structures in two-dimensional space. The class Point should contain at least the following public methods:
   - the default constructor assigning zero to all the coordinates of the point,
   - the constructor with two parameters for the coordinates of the point,
   - getX – returning the x-coordinate of the point,
   - getY – returning the y-coordinate of the point,
   - setX – setting the x-coordinate of the point,
   - setY – setting the y-coordinate of the point,
   - distance - computing the distance between this point and the second one given as the parameter.

   The class Line should contain at least the following public methods:
   - the default constructor assigning zero to all the coefficients of the line,
   - the constructor with two parameters for the directional (a) and the free coefitient (b) of the line in form of y=ax+b,
   - the constructor with two points as the parameters,
   - distance – computing the distance between the line and a point given as the parameter,
   - isOnLine – checking wheter a point given as the parameter belongs to the line,
   - orthogonalLine – returning a new line orthogonal to this line and containing a point given as the parameter.

   Write the testing program which should create at least two points and one line given by the user and test all the capabilities of the classes.