Exercise 5

1. . Define the class "Rectangle". Rectangle attributes are its sides.. The class provides at least two constructors and methods for calculating the field and the diagonal of the rectangle. On the basis of the Rectangle class define the class Cuboid (adds the third side). As like the class Rectangle the class Cuboid provides at least two constructors and methods for calculating the lateral area and the diagonal of the cuboid. In the calculations of the surface area and the diagonal for the cuboid use methods inherited from Rectangle class – field and diagonal. Implement the main function in which you will demonstrate the operation of the implemented classes. Remember that your program should be equipped with simple user interface.

2. Define the class of Arabian Numbers. Protected attribute of this class is the value of the number (integer). Class provides at least one constructor and method, which prints the value of the number on the screen. Based on the class Arabian Numbers create teh class Roman Number, which contains at least the method that prints the Roman Number on the screen.