1. Create a class called *Window*. It will have 3 attributes: *name* (string), *width* (int) and *height* (int) and a constructor with 3 parameters to initialize its attributes. It must have as well a method called *toString()* that returns the information of the window. Create a *Main* class where it will have an array of 10 windows. Each *width* and *height* will be assigned using a random number. The *width* will be a number between 90 and 120 cm and the *height* will be a number between 40 and 100 cm.

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2. Create a class called *FotoAlbum* with an attribute called *pageNumber*. It will have:
    a. A constructor which receives the page number. (You have to use the word *this* in this constructor).
    b. A constructor without parameters and it will create a *FotoAlbum* with 16 pages. This constructor will reuse the constructor above.
    c. Getter and setter for the attribute.
    d. A *toString* method which returns "I am an album with N pages".

    Create another class called *GranAlbum* that inherits from *FotoAlbum*. This class will have:

    a. A constructor without parameters which will reuse the parent constructor and will create an Album with 64 pages.
    b. A *toString()* method which will reuse the parent method and will add to the result string "and I am big".

    Create a *Main* class to test both classes. Create an array of 4 albums. 2 will be *FotoAlbum* and the other 2 *GrandAlbum*.

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3. Create a class called *3DPoint,* to represent a point in 3D space, with the coordinates x, y and z as attributes. It has to have these methods:
    a. A *constructor* to stablish the values for x, y and z.

b. *moveTo(int x, int y, int z)* that will change the coordinates of the point with the new ones received as parameters.

c. *distanceTo(3DPoint p2)* to calculate the distance to p2 point: (the result will be a double)

$$d(P_1, P_2) = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

d. *toString()* method which will return a string with the representation of the point similar to "(2,-7,0)"

e. All the getters and setters.

You will have to create a *Main* class to test it where you will have to create an array of 5 3D points, ask the user the information about them and after that show the distance between the first one to the others like this:

The distance between (7,4,3) to (17,6,2) is: 10.246951

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4. A complex number has 2 parts: a real part and an imaginary part. In a number as a+bi (2-3i, for example) the real part would be "a"(2) and the imaginary part would be "b" (-3). Create a class called *ComplexNumber* to represent complex numbers. It will have:
   a. A constructor to establish both attributes.
   b. A constructor without parameter which reuse the constructor above.
   c. Setters and getters for both attributes.
   d. A *toString*() method that returns "2-3i"
   e. A *getMagnitude*() method that returns the magnitude of the complex number: $\sqrt{a^2 + b^2}$
   f. A static method *Sum* that returns the sum of 2 complex numbers passed as parameters. The result will be: $(a_1 + a_2) + (b_1 + b_2)i$