Form A

   We will practice object-oriented programming (OOP) today. You will work in pairs. The two in a pair (student A and student B) take two different handouts (form A and form B). DO NOT exchange your forms or disclose to your partner. Follow the steps below.

1. Explain the following classes to your partner so that he/she can create the same classes on his/her form. DO NOT mention any keyword in your explanation.

```java
public abstract class Shape {
    public abstract double area();
}
public class Rectangle extends Shape {
    public double area() {
        return 0.0;
    }
}
public class Ellipse extends Shape {
    public double area() {
        return 0.0;
    }
}
```

2. Make the change as told to.

3. Create an interface called ThreeDimensional. It has a method called "volume" that takes no parameters and returns a double.

4. Write down the classes that are explained to you.

5. Make all the classes functional with your partner. (You don't have to compute the right values.) Think about how to make the shapes unmodifiable.

Form B

We will practice object-oriented programming (OOP) today. You will work in pairs. The two in a pair (student A and student B) take two different handouts (form A and form B). DO NOT exchange your forms or disclose to your partner. Follow the steps below.

1. Write down the classes that your partner explains to you.

2. Rectangles and ellipses both have widths and heights as their properties. Modify the Rectangle and Ellipse classes to reflect this. Create a constructor for each class that initializes the fields with parameters. Inform your partner of your change.

3. Write down the interface that your partner tells you.

4. Following step 3, create Rectangle3D and Ellipse3D as subclasses of Rectangle and Ellipse. Explain those classes to your partner. DO NOT mention any keyword in your explanation.

5. Make all the classes functional with your partner. (You don't have to compute the right values.) Think about how to make the shapes unmodifiable.