Lab: Classes

Problems for in-class lab for the "JavaScript Advanced" course @ SoftUni. Submit your solutions in the SoftUni judge system at https://judge.softuni.bg/Contests/2768/Classes-Lab.

Person

Write a class that represents a personal record. It has the following properties, all set from the constructor:

- firstName
- lastName
- age
- email

And a method toString(), which prints a summary of the information. See the example for formatting details.

Input

The constructor function will receive valid parameters.

Output

The toString()method should return a string in the following format:

`` `{firstName} {lastName} (age: {age}, email: {email})` ``

Submit the class definition as is, without wrapping it in any function.

Example

Sample Input
let person = new Person('Anna', 'Simpson', 22, 'anna@yahoo.com'); **console.log(person.toString());**
Output
Anna Simpson (age: 22, email: anna@yahoo.com)

Get Persons

Write a function that returns an array of **Person** objects. Use the class from the previous task, create the following instances, and return them in an array:

First Name	Last Name	Age	Email
Anna	Simpson	22	anna@yahoo.com
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Stephan	Johnson	25	
Gabriel	Peterson	24	g.p@gmail.com

For any empty cells, do not supply a parameter (call the constructor with fewer parameters).

Input / Output

There will be no input, the data is static and matches the table above. As output, return an array with **Person** instances.

Submit a function that returns the required output.

Circle

Write a class that represents a Circle. It has only one data property - its radius, and it is set through the constructor. The class needs to have getter and setter methods for its diameter - the setter needs to calculate the radius and change it and the getter needs to use the radius to calculate the diameter and return it.

The circle also has a getter area(), which calculates and returns its area.

Input

The constructor function and diameter setter will receive valid parameters.

Output

The diameter() and area() getters should return numbers.

Submit the class definition as is, without wrapping it in any function.

Examples

Sample Input	Output

let c = new Circle(2); **console.log(`Radius: ${c.radius}`);** **console.log(`Diameter: ${c.diameter}`);** **console.log(`Area: ${c.area}`);** **c.diameter = 1.6;** **console.log(`Radius: ${c.radius}`);** **console.log(`Diameter: ${c.diameter}`);** **console.log(`Area: ${c.area}`);**	**Radius: 2** **Diameter: 4** **Area: 12.566370614359172** **Radius: 0.8** **Diameter: 1.6** **Area: 2.0106192982974678**

Point Distance

Write a JS class that represents a Point. It has x and y coordinates as properties, that are set through the constructor, and a static method for finding the distance between two points, called distance().

Input

The distance() method should receive two Point objects as parameters.

Output

The distance() method should return a number, the distance between the two-point parameters.

Submit the class definition as is, without wrapping it in any function.

Example

Sample Input	Output
let p1 = new Point(5, 5); **let p2 = new Point(9, 8);** **console.log(Point.distance(p1, p2));**	**5**

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