/*CODING CHALLENGE 5*/

Remember the tip calculator challenge ? Let 's create a more advanced version using everything we learned!

This time, John and his family went to 5 different restaurants.
The bills were $124, $48, $268, $180 and $42.
John likes to tip 20 % of the bill when the bill is less than $50, 15 % when the bill is between $50 and $200, and 10 % if the bill is more than $200.

Implement a tip calculator using objects and loops:
1. Create an object with an array for the bill values
2. Add a method to calculate the tip
3. This method should include a loop to iterate over all the paid bills and do the tip calculations
4. As an output, create 1) a new array containing all tips, and 2) an array containing final paid amounts(bill + tip).HINT: Start with two empty arrays[] as properties and then fill them up in the loop.

EXTRA AFTER FINISHING:
Mark 's family also went on a holiday, going to 4 different restaurants. The bills were $77, $375, $110, and $45.
Mark likes to tip 20 % of the bill when the bill is less than $100, 10 % when the bill is between $100 and $300, and 25 % if the bill is more than $300(different than John).

5. Implement the same functionality as before, this time using Mark 's tipping rules.
6. Create a function (not a method) to calculate the average of a given array of tips.
HINT:
Loop over the array, and in each iteration store the current sum in a variable(starting from 0).After you have the sum of the array, divide it by the number of elements in it(that 's how you calculate the average)
7. Calculate the average tip for each family
8. Log to the console which family paid the highest tips on average

GOOD LUCK😀

/** CODING CHALLENGE 2*/
John and Mike both play basketball in different teams. In the latest 3 games, John's team scored 89, 120 and 103 points, while Mike's team scored 116, 94 and 123 points.

1. Calculate the average score for each team
2. Decide which teams wins in average (highest average score), and print the winner to the console. Also include the average score in the output.
3. Then change the scores to show different winners. Don't forget to take into account there might be a draw (the same average score)

4. EXTRA: Mary also plays basketball, and her team scored 97, 134 and 105 points. Like before, log the average winner to the console. HINT: you will need the && operator to take the decision. If you can't solve this one, just watch the solution, it's no problem :)
5. Like before, change the scores to generate different winners, keeping in mind there might be draws.

GOOD LUCK 😀

Note: The this **keyword** gets it value as soon as the object calls the **method**.

Invoking a Function with a Function Constructor

If a **function** invocation is preceded with the **new keyword,** it is a constructor invocation.

It looks like you create a new function, but since JavaScript **functions are objects** you actually create a new object:

Example

```
// This is a function constructor:
function myFunction(arg1, arg2) {
    this.firstName = arg1;
    this.lastName  = arg2;
}

// This creates a new object
var x = new myFunction("John", "Doe");
x.firstName;                             // Will return "John"
```

The **this** keyword in the constructor does not have a value.

The value of **this** will be the new object created when the function is invoked.

Invoking a function as a global function, causes the value of **this** to be the global object

Invoking a Function as a Method

In JavaScript you can define **functions** as object methods.

```
Var myObject = {
 firstName:"John",
 lastName:"Doe",
fullName:function() {
return this.firstName+" "+this.lastName;
}
}
myObject.fullName();  // This Will return "John Doe"
```

The **fullName** method is a function. The function belongs to the object. **MyObject** is the owner of the function.

Methods is a **function when** attached to an **object** in JavaScript.