

1. What is this code going to show?

```
let fruits = ["Apples", "Pear", "Orange"];  
// push a new value into the "copy"  
let shoppingCart = fruits;  
shoppingCart.push("Banana");  
// what's in fruits?  
alert( fruits.length ); // ?
```

El resultado del alert será 4

2. Let's try 5 array operations.

- Create an array styles with items "Jazz" and "Blues".
- Append "Rock-n-Roll" to the end.
- Replace the value in the middle with "Classics". Your code for finding the middle value should work for any arrays with odd length.
- Strip off the first value of the array and show it.
- Prepend Rap and Reggae to the array.

```
let styles = ["Jazz", "Blues"];  
  
styles.push("Rock-n-Roll");  
  
styles[Math.trunc(styles.length/2)] = "Classics";  
  
console.log(styles.splice(0,1));  
  
styles.unshift("Rap", "Reggae");
```

3. What is the result? Why?

```
let arr = ["a", "b"];  
arr.push(function() {  
  alert( this ); });
```

```
arr[2](); // ?
```

El resultado de sacar la tercera posición del array será a, b, function(){ alert(this);}. Porque con el push le añadimos la función entera al array y al sacar su posición la llamamos y al tener un alert(this) muestra todo lo que hay dentro del array.

4. Write the function sumInput() that:

- Asks the user for values using prompt and stores the values in the array.
- Finishes asking when the user enters a non-numeric value, an empty string, or presses "Cancel".
- Calculates and returns the sum of array items.

P.S. A zero 0 is a valid number, please don't stop the input on zero

```
function sumInput() {
  let suma = 0;
  let bool = true;
  let arr = Array();
  while (bool) {
    let valorIntroducido = prompt("Introduce un numero: ");
    if (isNaN(valorIntroducido) || valorIntroducido === null ||
valorIntroducido === "") {
      bool = false;
    }else{
      let conversion = parseInt(valorIntroducido);
      arr.push(conversion);
    }
  }

  for(let num of arr){
    suma += num;
  }
  return suma;
}

let resultado = sumInput();

console.log(resultado);
```

5. The input is an array of numbers `arr = [1, -2, 3, 4, -9, 6]` and the task is to find the contiguous subarray of `arr` with the maximal sum of items. Write the function `getMaxSubSum(arr)` that will return that sum. Please try to think of a fast solution: $O(n^2)$ or even $O(n)$ if you can

```
getMaxSubSum([-1, 2, 3, -9]) == 5
getMaxSubSum([2, -1, 2, 3, -9]) == 6
getMaxSubSum([-1, 2, 3, -9, 11]) == 11
getMaxSubSum([-2, -1, 1, 2]) == 3
getMaxSubSum([100, -9, 2, -3, 5]) == 100
getMaxSubSum([1, 2, 3]) == 6 (take all)
```

```
function getMaxSubSum(arr) {  
  let sumaActual = arr[0];  
  let mayorSuma = 0;  
  
  for (let i = 0; i < arr.length; i++) {  
    sumaActual = (arr[i] > sumaActual + arr[i]) ? arr[i] : sumaActual  
+ arr[i];  
    mayorSuma = (sumaActual > mayorSuma) ? sumaActual : mayorSuma;  
  }  
  return mayorSuma;  
}
```