Arrays

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 ); // ?
```

2. Let's try 5 array operations.

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

3. What is the result? Why?

```
let arr = ["a", "b"];

arr.push(function() {
  alert( this );
});

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

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.

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)
```