Two Sum

Background: The challenge is to write a function that assesses if there are two numbers in an array of numbers whose sum equals a target number. If there are, the function return the indices of those numbers.

Challenge: LeetCode - 1. Two Sum

Resources: freeCodeCamp

Notes: The code below is intended to be informational and is not meant to be the only way to write a function that determines the indices of two integers whose sum is a given integer. In addition to the function below, I employed other functions and methods to set conditions and facilitate user interaction.

```
function twoSum(arr, target) {
    // create an object/hash map to store key-value pairs
    let numsObj = {};

    // use a loop to check if the two numbers are present
    for (let i = 0; i < arr.length; i++) {
        // assign someNum to the first number found in the array
        let someNum = arr[i];

        // find the second value and assign it to numDifference
        let numDifference = target - someNum;

        // in the object, if the value of the first integer is in the object,
            // get the indices of the first & second integers
        if (numsObj[someNum] !== undefined ) {
            return [numsObj[someNum], i]
        }else {
            // they were not found
            numsObj[numDifference] = i
        }
    }
    return "Target not found!";
}

// TESTING THE FUNCTION
console.log(twoSum([2,7,11,15], 9));  // [0, 1]
console.log(twoSum([3,2,4], 6));  // [1, 2]
console.log(twoSum([1,2,3], 6));  // [0, 1]
console.log(twoSum([1,3,10,11,14], 10));  // Target not found!
```

```
console.log(twoSum([75,45,20,100,18], 145));  // [1, 3]
```