

WEEK 4 ASSIGNMENT UJJVAL PATEL

//Question 1 Create an array called ages that contains the following values: 3, 9, 23, 64, 2, 8, 28, 93.

```
var ages = [3, 9, 23, 64, 2, 8, 28, 93]
```

```
var len = ages.length;
```

```
var newAge = ages[len-1] - ages[0];
```

```
ages.push(newAge);
```

```
let sum = 0;
```

```
for (let i = 0; i < len; i++) {
```

```
    sum += ages[i];
```

```
}
```

```
let average = sum / len;
```

```
console.log(`Question 1:The average age is: ${average}`);
```

//Question 2 Create an array called names that contains the following values: 'Sam', 'Tommy', 'Tim', 'Sally', 'Buck', 'Bob'.

```
var names = ["Sam", "Tommy", "Tim", "Sally", "Buck", "Bob"];
```

```
let sumOfWordLen = 0;
```

```
for (let i = 0; i < names.length; i++) {
```

```
    sumOfWordLen += names[i].length;
```

```
}
```

```
let averageOfWordLen = sumOfWordLen / names.length;
```

```
console.log(`Question 2A:The average number of letters per name is: ${averageOfWordLen}`);
```

```
let concatenatedNames = "";
```

```
for (let i = 0; i < names.length; i++) {  
    concatenatedNames += names[i] + ' ';  
}  
  
console.log("Question 2B:Concatenated names:", concatenatedNames.trim());  
  
//Question 3 How do you access the last element of any array?  
console.log("Question 3:",ages[ages.length-1]); //arrayName[arrayName.arrayLength-1]  
  
//Question 4 How do you access the first element of any array?  
console.log("Question 4",ages[0]);//arrayName[0];  
  
//Question 5 Create a new array called nameLengths. Write a loop to iterate over the previously created  
names array and add the length of each name to the nameLengths array.  
  
var nameLengths =[];  
for (let i = 0; i < names.length; i++) {  
    nameLengths.push(names[i].length);  
}  
console.log("Question 5",nameLengths);  
  
// Question 6 Write a loop to iterate over the nameLengths array and calculate the sum of all the  
elements in the array.  
  
let sumForQ6 = 0;  
for (let i = 0; i < nameLengths.length; i++) {  
    sumForQ6 += nameLengths[i];  
}  
console.log(`Question 6:The sum of all the elements in the array: ${sumForQ6}`);
```

```
// Question 7 Write a function that takes two parameters, word and n, as arguments and returns the word concatenated to itself n number of times. (i.e. if I pass in 'Hello' and 3, I would expect the function to return 'HelloHelloHello').
```

```
console.log("Question 7:");

function myPrint(word,num){

    var myWord = "";

    for(let i=0;i<num;i++){

        myWord+=word;

    }

    console.log(myWord);

}

myPrint("Hello",3);
```

```
//Question 8 Write a function that takes two parameters, firstName and lastName, and returns a full name. The full name should be the first and the last name separated by a space.
```

```
console.log("Question 8:");

function myName(firstName,lastName){

    return firstName+' '+lastName;

}

console.log(myName("Elon","Musk"));
```

```
// Question 9 Write a function that takes an array of numbers and returns true if the sum of all the numbers in the array is greater than 100.
```

```
console.log("Question 9:");

function sumGreater Than100(numbers) {

    let sum = 0;

    for (let i = 0; i < numbers.length; i++) {

        sum += numbers[i];

    }
```

```
return sum > 100;  
}  
  
var numbers = [20, 30, 40, 50];  
console.log(sumGreaterThan100(numbers));
```

//Question 10 Write a function that takes an array of numbers and returns the average of all the elements in the array.

```
console.log("Question 10:");  
function avgOfArray(numbers) {  
    let sum = 0;  
    for (let i = 0; i < numbers.length; i++) {  
        sum += numbers[i];  
    }  
    return sum / numbers.length;  
}
```

```
var numbers = [20, 30, 40, 50 ,90,80];  
console.log(avgOfArray(numbers));
```

//Question 11 Write a function that takes two arrays of numbers and returns true if the average of the elements in the first array is greater than the average of the elements in the second array.

```
console.log("Question 11:");  
function avgOfTwoArray(numbers1,numbers2) {  
    let sumofnum1 = 0;  
    for (let i = 0; i < numbers1.length; i++) {  
        sumofnum1 += numbers1[i];  
    }  
    let sumofnum2 = 0;
```

```

for (let i = 0; i < numbers2.length; i++) {
    sumofnum2 += numbers2[i];
}

return ((sumofnum1 / numbers1.length) > (sumofnum2 / numbers2.length));
}

var numbers1 = [20, 30, 40, 50 ,90,80];
var numbers2 =[10,20,30,40,50];
console.log(avgOfTwoArray(numbers1,numbers2));

//Question 12 Write a function called willBuyDrink that takes a boolean isHotOutside, and a number
moneyInPocket, and returns true if it is hot outside and if moneyInPocket is greater than 10.50.

console.log("Question 12:");

function willBuyDrink(isHotOutside, moneyInPocket) {
    return isHotOutside && moneyInPocket > 10.50;
}

console.log(willBuyDrink(true,7.0));
console.log(willBuyDrink(false,17.0));
console.log(willBuyDrink(true,17.0));

//Question 13 Create a function of your own that solves a problem.

console.log("Question 13:");

function calculatePercentage(part, total) {
    return (part / total) * 100;
}

console.log(calculatePercentage(5,650));
//calculatePercentage(20, 100) would return 20, which represents 20% of the total amount.

```

The screenshot shows the Chrome Developer Tools Console tab. The console has two messages displayed:

- Question 1: The average age is: 28.75 (Week4.js:13)
- Question 2A: The average number of letters per name is: 3.833333333333335 (Week4.js:24)

Below these, there are several entries labeled "Question" followed by a question number or a related string, each with a corresponding file path:

- Question 2B: Concatenated names: Sam Tommy Tim Sally Buck Bob (Week4.js:30)
- Question 3: 90 (Week4.js:33)
- Question 4 3 (Week4.js:36)
- Question 5 ► Array(6) (Week4.js:44)
- Question 6: The sum of all the elements in the array: 23 (Week4.js:52)
- Question 7: (Week4.js:55)
- HelloHelloHello (Week4.js:61)
- Question 8: (Week4.js:66)
- Elon Musk (Week4.js:70)
- Question 9: (Week4.js:74)
- true (Week4.js:84)
- Question 10: (Week4.js:87)
- 51.666666666666664 (Week4.js:97)
- Question 11: (Week4.js:100)
- true (Week4.js:115)
- Question 12: (Week4.js:118)
- false (Week4.js:123)
- false (Week4.js:124)
- true (Week4.js:125)
- Question 13: (Week4.js:128)
- 0.7692307692307693 (Week4.js:132)

A blue arrow icon is located at the bottom left of the console area.