

EVALUATION - 2 JAVASCRIPT & TYPESCRIPT

1. Write a JavaScript program to get the current date.

```
Expected Output :  
mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy
```

2. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.

```
[ Formula :  $c/5 = (f-32)/9$  [ where c = temperature in Celsius and f =  
temperature in Fahrenheit ]  
Expected Output :  
60°C is 140 °F  
45°F is 7.222222222222222°C
```

3. Your task is to split the chocolate bar of given dimension n x m into small squares. Each square is of size 1x1 and unbreakable. Implement a function that will return the minimum number of breaks needed.

```
For example if you are given a chocolate bar of size 2 x 1 you can  
split it into single squares in just one break, but for size 3 x 1  
you must do two breaks.
```

```
If input data is invalid you should return 0 (as in no breaks are  
needed if we do not have any chocolate to split). Input will always  
be a non-negative integer.
```

4. A digital root is the *recursive sum of all the digits in a number*. Given n , take the sum of the digits of n . If that value has more than one digit, continue reducing in this way until a single-digit number is produced. This is only applicable to the natural numbers.

Here's how it works:

```
digital_root(16)
=> 1 + 6
=> 7

digital_root(942)
=> 9 + 4 + 2
=> 15 ...
=> 1 + 5
=> 6

digital_root(132189)
=> 1 + 3 + 2 + 1 + 8 + 9
=> 24 ...
=> 2 + 4
=> 6

digital_root(493193)
=> 4 + 9 + 3 + 1 + 9 + 3
=> 29 ...
=> 2 + 9
=> 11 ...
=> 1 + 1
=> 2
```

5. Given a list `lst` and a number `N`, create a new list that contains each number of `lst` at most `N` times without reordering. For example if `N = 2`, and the input is `[1,2,3,1,2,1,2,3]`, you take `[1,2,3,1,2]`, drop the next `[1,2]` since this would lead to 1 and 2 being in the result 3 times, and then take 3, which leads to `[1,2,3,1,2,3]`.

Example

```
deleteNth ([1,1,1,1],2) // return [1,1]
```

```
deleteNth ([20,37,20,21],1) // return [20,37,21]
```

6. How Do You Implement Inheritance In Typescript?

7. Write a JavaScript program that accept two integers and display the larger

8. Write a JavaScript conditional statement to find the sign of a product of three numbers. Display an alert box with the specified sign.

Sample numbers : 3, -7, 2

Output : The sign is -

9. Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result.

Sample numbers : 0, -1, 4

Output : 4, 0, -1

10. Write a JavaScript program to construct the following pattern, using a nested for loop.

```
*
* *
* * *
* * * *
* * * * *
```