**Code Byte Challenges JavaScript**

**Challenge 1//Find the longest word in sentence 19 April 2018**

1. function LongestWord(sen) {
2. var str = sen.split(" ");
3. var longest = 0;
4. var word = null;
5. for(var i=0;i<str.length;i++){
6. if(longest<str[i].length){
7. longest = str[i].length;
8. word = str[i];
9. }
10. }
11. sen = word;
12. // code goes here
13. return sen;
15. }
17. // keep this function call here
18. LongestWord(readline());

**Challenge 2// factorial of a number 19 April2018**

1. function FirstFactorial(num) {
2. //var number = num;
3. if(num<0)
4. return "Undefined";
5. var fact=1;
6. for(var i=num;i>1;i--)
7. fact\*=i;
8. num = fact;
9. return num;
11. }
13. // keep this function call here
14. FirstFactorial(readline());

**Challenge 3//Reverse of a number**

1. function FirstReverse(str) {
3. var splitString = str.split("");
4. var reverseArray = splitString.reverse();
5. var joinArray = reverseArray.join("");

8. return joinArray;
10. }
12. // keep this function call here
13. FirstReverse(readline());

function FirstReverse(str) {

//var splitString = str.split("");

//var reverseArray = splitString.reverse();

//var joinArray = reverseArray.join("");

//return joinArray;

return str.split("").reverse().join("");

}

// keep this function call here

FirstReverse(readline());

**Challenge 4//Replace every letter in the string with the letter following it in the alphabet (i.e. c becomes d, z becomes a). Then capitalize every vowel in this new string (a, e, i, o, u) and finally return this modified string.**

function LetterChanges(str) {

str = str.trim().toLowerCase();

str = str.replace(/[a-zA-Z]/g, function(ch) {

if (ch === 'z') return 'a';

else if (ch === 'Z') return 'A';

else return String.fromCharCode(ch.charCodeAt(0) + 1);

});

return str.replace(/[aeiou]/g, function(ch) {

return ch.toUpperCase();

});

}

// keep this function call here

LetterChanges(readline());

**Challenge 5// Using the JavaScript language, have the function SimpleAdding(num) add up all the numbers from 1 to num. For example: if the input is 4 then your program should return 10 because 1 + 2 + 3 + 4 = 10**

1. function SimpleAdding(num) {
2. var sum = 0;
3. for(var i =0; i<= num;i++){
4. sum = sum+i;
5. }
6. return sum;
8. }
10. // keep this function call here
11. SimpleAdding(readline());

**Challenge 6: Convert first letter of each word in a sentence to uppercase**

1. function LetterCapitalize(str) {
2. var pieces = str.split(" ");
3. for ( var i = 0; i < pieces.length; i++ )
4. {
5. var j = pieces[i].charAt(0).toUpperCase();
6. pieces[i] = j + pieces[i].substr(1).toLowerCase();
7. }
8. return pieces.join(" ");
9. }
11. // keep this function call here
12. LetterCapitalize(readline());

**Challenge 7: The str parameter will be composed of + and =symbols with several letters between them (ie. ++d+===+c++==a) and for the string to be true each letter must be surrounded by a + symbol. So the string to the left would be false. The string will not be empty and will have at least one letter.**

1. function SimpleSymbols(str) {
2. var str = '=' + str + '=';
3. // loop through entire string
4. for (var i = 0; i < str.length; i++) {
6. // check to see if current character is an alphabetic character
7. // by using a simple case-insensitive regex pattern
8. if (str[i].match(/[a-z]/g) !== null) {
9. // check to see if a + symbol is to the left and right
10. // if not, then we know this string is not valid
11. if (str[i-1] !== '+' || str[i+1] !== '+') {
12. return false;
13. }
14. }
16. }
17. return true;

20. }
22. // keep this function call here
23. SimpleSymbols(readline());

**Challenge 8: Using the JavaScript language, have the function CheckNums(num1,num2) take both parameters being passed and return the string true if num2 is greater than num1, otherwise return the string false. If the parameter values are equal to each other then return the string -1.**

1. function CheckNums(num1, num2) {
2. if(num1>num2)
3. return "false";
4. else if(num1==num2)
5. return -1
6. else return "true";
7. }
9. // keep this function call here
10. CheckNums(readline());

**Challenge 9: Using the JavaScript language, have the function TimeConvert(num) take the num parameter being passed and return the number of hours and minutes the parameter converts to (ie. if num = 63 then the output should be 1:3). Separate the number of hours and minutes with a colon.**

1. function TimeConvert(num) {
2. var abc = num/60;
3. var bcd = num%60;
4. return Math.floor(abc)+":"+bcd;
6. }
8. // keep this function call here
9. TimeConvert(readline());