

**Create separate html document for the following exercises:**

1. Define a function 'hello' that returns 'Hello "YOUR NAME"!'.  
`hello('YOUR NAME')` should return 'Hello "YOUR NAME"!'
2. Define two functions. The first function 'a' should return 'Hello a!' and the second function 'b' should return 'Hello b!'.
3. 1. Define a function 'greet' returning the value 'YOUR NAME!'.  
2. Declare a variable 'salutation'. Call the function 'greet' and assign the result of the call to the variable 'salutation'.
4. Write a function 'echo' that also returns the passed parameter. `echo('SkillSafari')` should return 'SkillSafari' and `echo('EduKeys')` should return 'EduKeys'
5. Write a function 'greet' having one parameter and returning 'Hello <parameter>!'.  
Example: `greet('SkillSafari')` should return 'SkillSafari!'
6. Write a function log, that takes a parameter and logs this parameter in console.  
Example: `log('Hello SkillSafari')` should log 'Hello SkillSafari'.
7. Write a function 'shout' that takes a string and returns this string duplicated. In addition, the return should be logged in console.  
Example: `shout('Hello')` should return 'HelloHello' and should log 'HelloHello'.
8. Write a function 'length' that takes a string and returns the number of characters of the string.  
Example: `length('Hello')` should return 5.
9. Write a function 'toCase' that takes a string and returns that string in lowercase and uppercase with - as delimiter.  
Example: `toCase('hello')` should return 'hello-HELLO'.
10. Write a function 'shortcut' that takes two strings and returns the initial letters of these strings.  
Example: `shortcut('Java', 'Script')` should return 'JS'.
11. Write a function 'firstChar', which returns the first character that is not a space when a string is passed.  
Example: `firstChar(' YOUR NAME ')` should return 'YOUR NAME's first Character'.
12. Write a function 'indexOfIgnoreCase' taking two strings and determining the first occurrence of the second string in the first string. The function should be case insensitive.  
Example: `indexOfIgnoreCase('skill', 'kill')` and `indexOfIgnoreCase('skil', 'KILL')` should return 1.
13. Write a function 'secondIndexOf', taking two strings and determining the second occurrence of the second string in the first string. If the search string does not occur twice, -1 should be

returned.

Example: `secondIndexOf('White Rabbit', 'it')` should return 10.

14. Write a function 'firstWord', taking a string and returning the first word in that string. The first word are all characters up to the first space.

Example: `firstWord('skill and safari')` should return 'skill'.

15. Write a function 'normalize', that replaces '-' with '/' in a date string.

Example: `normalize('15-07-2021')` should return '15/07/2021'.

16. Write a function 'add' that takes two numbers and returns their sum.

Example: `add(1, 2)` should return 3.

17. Write a function 'toFahrenheit' that converts a temperature from Celsius to Fahrenheit.

Example: `toFahrenheit(0)` should return 32.

18. Write a function 'mean' that takes 2 numbers and returns their mean value.

Example: `mean(1, 2)` should return 1.5.

19. Write a function 'hypotenuse' that calculates the length of the hypotenuse of a right triangle.

The length of the two legs is passed to the function. Tip: In a right triangle the Pythagorean theorem is valid. If a and b are the lengths of the two legs and c is the length of the hypotenuse, the following is true:  $a^2 + b^2 = c^2$ . Since  $3^2 + 4^2 = 5^2$  applies, `hypotenuse(3, 4)` should return 5.

20. Write a function 'midrange', that calculates the midrange of 3 numbers. The midrange is the mean of the smallest and largest number.

Example: `midrange(3, 9, 1)` should return  $(9+1)/2 = 5$ .

21. Write a function 'dice' that returns like a dice a random number between 1 and 6.

22. Write a function 'add' that takes a string with a summation task and returns its result as a number. Two natural numbers should be added. The summation task is a string of the form '102+17'.

Example: `add('102+17')` should return 119.

23. Write a function 'nand' that takes two Boolean values. If both values are 'true', the result should be 'false'. In the other cases the return should be 'true'.

I.e.: The call `nand(true, true)` should return 'false'. The calls `nand(true, false)`, `nand(false, true)` and `nand(false, false)` should return 'true'.

24. Write a function 'isEven' that checks if a passed number is even. If the given number is even, 'true' should be returned, otherwise 'false'.

Example: `isEven(2)` should return 'true' and `isEven(3)` should return 'false'.

25. Write a function 'unequal' that checks 3 values for strict inequality. The function should return 'true' if all three parameters are strict unequal. Otherwise 'false'.
- Example: unequal(1, 2, 3) should return 'true' and unequal(1, 1, 2) should return 'false'.
26. Write a function 'isThreeDigit' that checks if a number is greater than or equal to 100 and less than 1000.
- Example: isThreeDigit(500) should return 'true' and isThreeDigit(50) should return 'false'.
27. Write a function 'equals' that checks two values for strict equality. If the two values are equal, the string 'EQUAL' should be returned. If they are unequal, you should get 'UNEQUAL'.
- Example: equals(1, 1) should return 'EQUAL' and equals(1, 2) should return 'UNEQUAL'.
28. Write a function 'repdigit' that determines whether a two-digit decimal is a 'repdigit' or not. If the decimal is a repdigit, 'Repdigit!' should be returned, otherwise 'No Repdigit!'.
- Example: repdigit(22) should return 'Repdigit!' and repdigit(23) should return 'No Repdigit!'.
29. Write a function 'addWithSurcharge' that adds two amounts with surcharge. For each amount less than or equal to 10, the surcharge is 1. For each amount greater than 10, the surcharge is 2.
- Example: addWithSurcharge(5, 15) should return 23.
30. Write a function 'sumMultiples' taking a natural number n and returning the sum of all multiples of 3 and of 5 that are truly less than n.
- Example: All multiples of 3 and 5 less than 20 are 3, 5, 6, 9, 10, 12, 15 and 18. Their sum is 78. sumMultiples(20) should return 78.