| FUNCTIONS| Task

1. Create a block of code that you can use several times.

2. Write a function that displays current date & time in your browser.

3. Write a function that takes first & last name and then it greets the user using his full name.

4. Write a function that adds two numbers (input by user) and returns the sum of two numbers.

5. **Calculator:** Write a function that takes three arguments num1, num2 & operator & compute the desired operation. Return and show the desired result in your browser.

6. Write a function that squares its argument.

7. Write a function that computes factorial of a number.

8. Write a function that take start and end number as inputs & display counting in your browser.

9. Write a nested function that computes hypotenuse of a right angle triangle. $\text{Hypotenuse}^2 = \text{Base}^2 + \text{Perpendicular}^2$ Take base and perpendicular as inputs. Outer function : calculateHypotenuse() Inner function: calculateSquare()

10. Write a function that writes variable length arguments list in your browser.

11. Write a function that accepts any number of arguments & find largest of the number.

12. Write a function that calculates the area of a rectangle. A = width * height Pass width and height in following manner:
a. Arguments as values
b. Arguments as variables
13. Write a function that receives an array & returns the sorted array.

14. Write a function that takes numbers array, sums its elements & returns the sum.

15. Execute & monitor the output of following JS program: var param = function inner() { return typeof inner; } alert(param());

16. Write a function that computes power of a number. E.g. 2_3 is 8.

17. Write a function that simulates a dice & returns a random dice value.

18. Write a JavaScript function that reverse a number. Example x = 32243; EXPECTED OUTPUT : 34223

19. Write a JavaScript function that checks whether a passed string is palindrome or not? A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam.

20. Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word of the

string in upper case. EXAMPLE STRING : 'the quick brown fox' EXPECTED OUTPUT : 'The Quick Brown Fox'

21. Write a JavaScript function that accepts a string as a parameter and find the longest word within the string. EXAMPLE STRING : 'Web Development Tutorial' EXPECTED OUTPUT : 'Development'

22. Write a JavaScript function that accepts a string as a parameter and counts the number of vowels within the string.

EXAMPLE STRING : 'The quick brown fox' EXPECTED OUTPUT : 5

23. Write a JavaScript function which accepts an argument and returns the type. Note : There are six possible values that typeof returns: object, boolean, function, number, string, and undefined.

24. Write a JavaScript function to extract unique characters from a string. EXAMPLE STRING : "thequickbrownfoxjumpsoverthelazydog" EXPECTED OUTPUT : "thequickbrownfxjmpsvlazydg"

25. Write a JavaScript function that accepts two arguments, a string and a letter and the function will count the number of occurrences of the specified letter within the string. *Sample arguments* : 'JSResourceS.com', 'o'

EXPECTED OUTPUT : 2

26. **The Age Calculator**

Forgot how old you are? Calculate it!
□ Write a function named calculateAge that:
◦ takes 2 arguments: birth year, current year.
◦ calculates the 2 possible ages based on those years.
◦ outputs the result to the screen like so: "You are either NN or NN"
□ Call the function three times with different sets of values.
□ **Bonus**: Figure out how to get the current year in JavaScript instead of passing it in.

27. The Lifetime Supply Calculator

Ever wonder how much a "lifetime supply" of your favorite snack is? Wonder no more!

- Write a function named calculateSupply that:
  - takes 2 arguments: age, amount per day.
  - calculates the amount consumed for rest of the life (based on a constant max age).
  - outputs the result to the screen like so: "You will need NN to last you until the ripe old age of X"
- Call that function three times, passing in different values each time.
- **Bonus**: Accept floating point values for amount per day, and round the result to a round number.

28. The Geometrizer

Create 2 functions that calculate properties of a circle, using the definitions here.

Create a function called calcCircumference:
□ Pass the radius to the function.
□ Calculate the circumference based on the radius, and output "The circumference is NN".

Create a function called calcArea:
□ Pass the radius to the function.
□ Calculate the area based on the radius, and output "The area is NN".

29. The Temperature Converter
It's hot out! Let's make a converter based on the steps here.
Create a function called celsiusToFahrenheit:
□ Store a celsius temperature into a variable.
□ Convert it to fahrenheit and output "NN°C is NN°F".

Create a function called fahrenheitToCelsius:
□ Now store a fahrenheit temperature into a variable.
□ Convert it to celsius and output "NN°F is NN°C."

-- END --