

Task 1

- Create a function that given number it returns the factorial of this number.
- Factorial is the multiplication of all numbers from 1 to the number
- Example: $\text{factorial}(3) \rightarrow 3 * 2 * 1 = 6$

Task 2

- Create a Calculate function that accepts:
- An **arithmetic operator** (+, -, *, /, ^) as the first argument.
- A variable number of arguments.
- **The function:**
- Filters out non-numeric arguments (Ignores invalid values (like strings, arrays, objects, etc)).
- Applies the specified arithmetic operation in sequence.
- Return null if fewer than two valid numbers are provided..
- Handles division by zero gracefully.

```
console.log(calculate('+', 1, 2, 3));           // 6
console.log(calculate('*', 2, 'x', 4));         // 8
console.log(calculate('^', 2, 3));              // "Error: Invalid operation
console.log(calculate('-', 'a', 5));            // null (only one number)
console.log(calculate('/', 10, 0));             // null (division by zero)
```

Task 3

Write a function called **isExcellentOrGoodStudent** that checks if a student has received a grade of **"A"** or **"B"**.

- **Requirements:**
- The function should take a single student object as an argument.
- Each student object has the following properties:
- name (string), age (number), grade (string)
- The function should return **true** if the grade is **"A"** or **"B"**, and **false** otherwise.
- Use this function with **.filter()** to get all students with grade "A" or "B" from **a given array of students**.

Example Scenario

- Here's the list of students and their grades:
 - Ahmed — Grade: A
 - Mohamed — Grade: B
 - Sally — Grade: B
 - Nadine — Grade: C
- From this list, the students who did well are:
 - Ahmed (because grade is A)
 - Mohamed (because grade is B)
 - Sally (because grade is B)
- You will exclude Nadine because her grade is C, which is not part of the grades we want.

Task 4

- You have array of objects, array contains data about products.
- Each product consists of title, description ,price and applyDiscount function that take the percent of discount and apply it to the price.
- Filter the products data according to the user input through prompt.
- Return the products that title or description contains the text that user enters.
- Display the filtered data in html document.