1. Write a function to calculate the factorial of a number.
2. Write a function to sort an array of strings alphabetically.
3. Write a function that checks if a number is prime.
4. Write a function that generates a random hex color code (e.g., #1a2b3c).
5. Write a function that multiplies each element in an array by a given multiplier.
6. Write a function that checks whether a string is a palindrome (reads the same forward and backward).
7. Write a function that takes either a string or a number and returns a message indicating the type. Use TypeScript type guards.
8. Write a function that combines two arrays of numbers into one without duplicates.
9. Write a function that finds the largest number in an array.
10. Create a class User with properties name and age. Add methods to update the name and display user details.
11. Write a function that counts the number of vowels (a, e, i, o, u) in a given string
12. Create an interface Person with name (string), age (number), and isStudent (boolean). Write a function that takes a Person object and prints a message based on their properties.
13. Write a function that takes an array of numbers and returns a new array containing only the even numbers.
14. Create a function that accepts two numbers and an operation (add, subtract, multiply, divide) as a string. Return the result of the operation.
15. Write a function that takes a string and returns it reversed.