1. Reverse a Number: Implement a function that reverses the digits of a given number.
2. Check Palindrome: Write a function to check if a given word is a palindrome (reads the same forwards and backward).
3. Count Vowels: Create a function that counts the number of vowels in a given string.
4. Prime Number: Write a function that checks if a number is prime.
5. Leap Year: Implement a function to determine if a year is a leap year.
6. Calculate Age: Create a function that calculates a person's age based on their birth year.
7. Sum of Digits: Write a function that calculates the sum of the digits of a number.
8. Fibonacci Sequence: Implement a function to generate the Fibonacci sequence up to a given number of terms.
9. Power of a Number: Create a function to calculate the power of a number (e.g., 2^3).
10. GCD (Greatest Common Divisor): Write a function to find the greatest common divisor of two numbers.
11. Calculate BMI: Implement a function to calculate BMI (Body Mass Index) based on weight and height.
12. Generate Random Number: Create a function that generates a random number between two given values.
13. Check for Prime Factors: Write a function that finds all the prime factors of a given number.
14. Reverse a String: Implement a function that reverses the characters in a given string.
15. Check for Leap Seconds: Create a function that checks if a given year has a leap second (e.g., 1999).
16. Calculate Compound Interest: Write a function to calculate compound interest based on principal, rate, and time.
17. Check for Perfect Number: Implement a function that checks if a given number is a perfect number.
18. Calculate Exponentiation: Create a function to calculate the result of exponentiation without using the Math.pow function.
19. Odd or Even: Write a function that determines if a given number is odd or even.
20. Factorial: Create a function to calculate the factorial of a number.

**Task-1**

Why spend money on a fortune teller when you can create your own destiny? Write a JavaScript function called tellFortune with the following specifications:

i)It should take four arguments: the number of children you'll have, the name of your future partner, the place you'll live in, and your future job title.

ii)The function should display your fortune on the screen in the following format: "You will be a [job title] in [location], and married to [partner's name] with [number of children] kids."

To complete the task, call the tellFortune function three times, each time with different values for the arguments to see different fortune predictions.

**Task-2**

"The Pet Age Calculator"

Ever wondered how old your cat is in human years? Let's calculate it!

Create a JavaScript function called calculatePetAge with the following specifications:

i) It should take one argument: your pet's age.

ii) Calculate your pet's age based on the conversion rate of 1 human year to 7 pet years (for example, for a cat).

iii) Display the result on the screen in the format: "Your kitty is NN years old in cat years!"

To make it more interesting, let's consider a bonus feature:

Bonus: Add an additional argument to the function that allows you to specify the conversion rate of human years to pet years, accommodating different types of animals.

Now, call the calculatePetAge function three times with various pet ages and conversion rates to see the pet's age in different contexts.

**Task-3**

**“The Rectangler”**

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

1. Create a function called calcPerimeter:

Pass the length and width of the rectangle to the function.

Calculate the perimeter of the rectangle based on its length and width, and output "The perimeter is NN".

1. Create a function called calcArea:

Pass the length and width of the rectangle to the function.

Calculate the area of the rectangle based on its length and width, and output "The area is NN”.

**Task-4**

**"The Coffee Consumption Estimator”**

Are you curious about how much coffee you'll need to last you through your coffee-drinking years? Let's create a function to estimate that!

Write a function named calculateCoffeeSupply that:

Takes 2 arguments: age and cups per day.

Calculates the total number of cups of coffee you'll consume for the rest of your life (based on a constant max age).

Outputs the result to the screen as: "You will need NN cups of coffee to keep you awake until the age of X."

Call that function three times, passing in different values each time to estimate your coffee consumption.

Bonus: Accept floating-point values for cups per day, and round the result to the nearest whole number."

**Task-5**

**"The Distance Converter”**

Let's create a converter for converting distances between different units. Follow these steps:

Create a function called metersToFeet:

Store a distance in meters into a variable.

Convert it to feet (1 meter = 3.281 feet) and output "NN meters is equal to NN feet."

Create a function called feetToMeters:

Store a distance in feet into a variable.

Convert it to meters (1 foot = 0.3048 meters) and output "NN feet is equal to NN meters."

Call both functions, passing in different distance values each time, to convert between meters and feet."