Task Sheet - Coding Exercise

Date: [Enter Date]

Student Name: [Enter Name]

Programming Language: JavaScript

1. Declare a variable and assign a string value to it. Example:

```
let name = "John";
console.log(name);
```

2. Declare a variable with `const` and assign a number. Example:

```
const age = 25;
console.log(age);
```

3. Declare a boolean variable and print its value. Example:

```
let isStudent = true;
console.log(isStudent);
```

4. Demonstrate `typeof` operator with different data types. Example:

```
console.log(typeof "Hello");
console.log(typeof 42);
console.log(typeof true);
```

5. Calculate total monthly expenses:

```
let rent = 15000, groceries = 5000, otherExpenses = 3000;
let totalExpenses = rent + groceries + otherExpenses;
console.log("Total Monthly Expenses:", totalExpenses);
```

6. Determine voting eligibility:

```
let age = 17;
let isEligible = age >= 18;
console.log("Eligible to vote:", isEligible);
```

7. Calculate discount price of a product:

```
let price = 1000, discount = 20;
let discountAmount = (price * discount) / 100;
let finalPrice = price - discountAmount;
```

```javascript
   console.log("Final Price:", finalPrice);
```

8. Calculate final grade of a student:
```javascript
   let math = 85, science = 90, english = 78;
   let total = math + science + english;
   let average = total / 3;
   console.log("Final Grade:", average);
```

9. Calculate tip amount:
```javascript
   let bill = 500, tipPercentage = 10;
   let tipAmount = (bill * tipPercentage) / 100;
   console.log("Tip Amount:", tipAmount);
```

10. Check leap year:
```javascript
   let year = 2024;
   let isLeapYear = (year % 4 === 0 && year % 100 !== 0) || year % 400 === 0;
   console.log("Is Leap Year:", isLeapYear);
```

11. Calculate BMI:
```javascript
   let weight = 70, height = 1.75;
   let bmi = weight / (height * height);
   console.log("BMI:", bmi);
```

12. Check senior citizen discount eligibility:
```javascript
   let age = 65;
   let isSenior = age >= 60;
   console.log("Eligible for senior citizen discount:", isSenior);
```

13. Determine type of triangle:
```javascript
   let a = 3, b = 4, c = 5;
   let triangleType = (a === b && b === c) ? "Equilateral" : (a === b || b === c || a === c) ? "Isosceles" : "Scalene";
   console.log("Triangle Type:", triangleType);
```

14. Calculate hourly wage:
```javascript
   let salary = 50000, hours = 160;
   let hourlyWage = salary / hours;
   console.log("Hourly Wage:", hourlyWage);
```

15. Calculate simple interest:

```
let principal = 10000, rate = 5, time = 2;
let interest = (principal * rate * time) / 100;
console.log("Simple Interest:", interest);
```

16. Convert height from feet to cm:

```
let feet = 5.8;
let cm = feet * 30.48;
console.log("Height in cm:", cm);
```

17. Check affordability of a product:

```
let budget = 5000, price = 4500;
let canBuy = budget >= price;
console.log("Can afford:", canBuy);
```

18. Check if a number is positive, negative, or zero:

```
let number = -5;
let result = (number > 0) ? "Positive" : (number < 0) ? "Negative" : "Zero";
console.log("Number type:", result);
```

19. Calculate fuel efficiency:

```
let distance = 500, fuel = 25;
let efficiency = distance / fuel;
console.log("Fuel Efficiency:", efficiency);
```

20. Calculate final bill amount with discount and tax:

```
let price = 1000, discount = 10, tax = 5;
let discountedPrice = price - (price * discount / 100);
let finalBill = discountedPrice + (discountedPrice * tax / 100);
console.log("Final Bill Amount:", finalBill);
```

Submission Guidelines:

- Upload code files in .zip format.

- Submit by [Deadline].