# Basic JavaScript Exercises

## Basic Understanding

**Note:** Solutions should be provided in text; you don't need to run the code.

1. **Variable Assignment and Arithmetic:**
   If `const a = 8` and `const b = 2`, what is the result of `a * b + 3`?

2. **Order with Variables:**
   Given `const x = 4, y = 2, z = 3`, evaluate the expression `x + y * z - 1`.

3. **Parentheses Impact:**
   If `const a = 4` and `const b = 2`, what is the result of `(a + b) * (b - 1)`?

4. **Expression with Variables:**
   If `const num = 50`, `const x = 5`, and `const y = 6`, what is the result of `num - x * y`?

5. **Mixing Operations:**
   Given `const a = 8`, `const b = 2`, and `const c = 4`, evaluate `a / b * c`.

6. **Predicting Results with Different Operation Orders:**
   If `const a = 2`, `const b = 3`, and `const c = 4`, predict the result of `a + b * c` and `(a + b) * c`.

7. **Nested Parentheses:**
   Given `const a = 2`, `const b = 3`, and `const c = 5`, calculate `((a + b) * c) / 2`.

8. **Complex Variable Expression:**
   If `const a = 3`, `const b = 6`, `const c = 5`, and `const d = 4`, determine the result of `a + b * (c + d) / b - d`.

## Intermediate Understanding

9. **Mixing Strings and Numbers:**
   If `const num = 2` and `const str = '3'`, evaluate the expression `num + str * 4`.

10. **String and Number Operations:**
    Consider `const a = 10`, `const b = 20`, and `const c = "30"`.
    Predict the results of `a + b + c` and `c + a + b`.

11. **Unary Plus with Variables:**
    If `const numStr = '3'` and `const num = 10`, what is the result of `+numStr + num`?

12. **Post-increment in Expression:**
    Given `const x = 10`, evaluate `x++ * 2` and state the final value of `x` after the operation.

13. **Division by Zero in Variable:**
    If `const a = 10`, what does JavaScript output when you calculate `a / 0`?

14. **Modulus Operator with Variables:**
    Given `const a = 15` and `const b = 4`, evaluate `a % b`.