RECURSIVE FUNCTIONS

- RECURSIVE FUNCTIONS ARE FUNCTIONS THAT CALL THEMSELVES WITHIN THEIR DEFINITION.
- THEY ARE USEFUL FOR SOLVING PROBLEMS THAT CAN BE BROKEN DOWN INTO SMALLER, SIMILAR SUBPROBLEMS.
- IN JAVASCRIPT, RECURSIVE FUNCTIONS CAN BE A POWERFUL TOOL FOR SOLVING COMPLEX PROBLEMS WITH ELEGANCE AND EFFICIENCY.

```javascript
function factorial(n) {
    // Base case
    if (n === 0) {
        return 1;
    }
    // Recursive case
    return n * factorial(n - 1);
}
```

```javascript
function fibonacci(n) {
    // Base cases: if n is 0 or 1, return n
    if (n === 0 || n === 1) {
        return n;
    }
    // Recursive case: Fibonacci(n) = Fibonacci(n-1) + Fibonacci(n-2)
    return fibonacci(n - 1) + fibonacci(n - 2);
}

// Example usage
console.log(fibonacci(6)); // Output: 8 (0, 1, 1, 2, 3, 5, 8)
```