Break and continue statements

Absolutely! Let's explore the `break` and `continue` statements in JavaScript — both are **loop control statements** used to alter the flow of looping structures like `for` , `while` , or `do...while` loops.

⬅️ `break` Statement

✅ Purpose:

Immediately **exits** the loop (or `switch` statement) **entirely**, skipping all remaining iterations.

🔷 Syntax:

```
break;
```

🔷 Example:

```javascript
for (let i = 1; i <= 5; i++) {
  if (i === 3) {
    break; // exits loop when i is 3
  }
  console.log(i);
}
```

📌 Output:

```
1
2
```

✅ Use Cases:

- Stop a loop early when a condition is met.

- Exit a `switch` statement block.

🔁 `continue` Statement

✅ Purpose:

Skips the current iteration and proceeds to the **next one**.

🔷 Syntax:

```
continue;
```

🔷 Example:

```javascript
for (let i = 1; i <= 5; i++) {
  if (i === 3) {
    continue; // skips when i is 3
  }
  console.log(i);
}
```

📌 Output:

```
1
2
4
5
```

✅ Use Cases:

- Skip unwanted iterations (e.g., filter odd/even numbers).

- Improve readability in complex loops.

🆚 `break` vs `continue` Summary

Feature	break	continue
Function	Exits the loop completely	Skips current iteration, continues
Affects	Entire loop	Just one iteration
Usage	When a condition should terminate loop	When a condition should be skipped
Applies to	Loops, switch	Loops only

🧪 Example with while loop

```javascript
let i = 0;
while (i < 5) {
  i++;
  if (i === 2) continue;
  if (i === 4) break;
  console.log(i);
}
```

📌 Output:

```
1
3
```

> i === 2 is skipped, i === 4 breaks the loop.

Bonus: Using break in nested loops with label

```javascript
outer: for (let i = 1; i <= 3; i++) {
  for (let j = 1; j <= 3; j++) {
    if (i === 2 && j === 2) break outer;
    console.log(`i = ${i}, j = ${j}`);
  }
}
```

📌 Output:

```
i = 1, j = 1
i = 1, j = 2
i = 1, j = 3
i = 2, j = 1
```

🧠 Explanation: When `i = 2` and `j = 2`, the labeled `outer` loop is exited entirely.

Would you like a few **interactive exercises** or real-world examples using these statements?