JavaScript/TypeScript Array Comparison – Key Concept

■ Why `array1 === array2` is ALWAYS false (most of the time)

In JavaScript and TypeScript, arrays are compared by **reference**, not by value.

Example:

```ts
const even = [2,4,6,8];
const even1 = [2,4,6,8];

console.log(even === even1); // false
```

Even though both arrays contain the same values, they are stored in **different memory locations**.

So the comparison checks:

- Is even stored in the same memory as even1?
- ■ No → So result is **false**.

■ Correct Ways To Compare Arrays

1. Using JSON.stringify()

```ts
JSON.stringify(even) === JSON.stringify(even1)
```

This converts arrays to strings and compares their values.

2. Using toString()

```ts
even.toString() === even1.toString()
```

Works for simple numeric/string arrays.

■ Summary

- `===` compares **references**, not values.

- Two arrays with the same values will still return **false** using `===`.

- Use `JSON.stringify()` or `toString()` to compare values correctly.