💡 Solutions:

JavaScript Array Method Challenges

## 1. Restaurant Billing with VAT

const bill = [100, 200, 150];  
const withVAT = bill.map(p => p + p \* 0.13);  
const total = withVAT.reduce((a, b) => a + b, 0);  
console.log(total.toFixed(1));

## 2. Passed Students Filter

const marks = [35, 80, 70, 25, 90];  
const passed = marks.filter(m => m >= 40);  
console.log(passed);

## 3. Most Expensive Item

const items = [199, 499, 1299, 850, 350];  
const maxPrice = items.reduce((a, b) => a > b ? a : b);  
console.log(maxPrice);

## 4. First Distinction

const scores = [50, 65, 77, 81, 60];  
const firstDist = scores.find(s => s >= 80);  
console.log(firstDist);

## 5. Delivery Completion

const deliveries = [true, true, false, true];  
const allDelivered = deliveries.every(d => d);  
console.log(allDelivered ? 'All delivered' : 'Not all delivered');

## 6. Game Scores Bonus

const scores = [30, 55, 70, 45, 90];  
const final = scores.filter(s => s >= 50).map(s => s + 10);  
console.log(final);

## 7. Total Items Sold

const sold = [2, 5, 7, 3];  
const total = sold.reduce((sum, val) => sum + val, 0);  
console.log(total);

## 8. Long Movie

const durations = [90, 110, 130, 100];  
const long = durations.find(d => d > 120);  
console.log(long);

## 9. Failed Students Check

const marks = [70, 55, 30, 85];  
const anyFail = marks.some(m => m < 40);  
console.log(anyFail ? 'There is a failed student' : 'All passed');

## 10. Capitalize Products

const items = ['milk', 'bread', 'butter'];  
const caps = items.map(i => i.toUpperCase());  
console.log(caps);

## 11. Meal Calories

const calories = [300, 450, 500];  
const total = calories.reduce((a, b) => a + b, 0);  
console.log(total);

## 12. Available Room

const rooms = ['booked', 'booked', 'available', 'booked'];  
const index = rooms.findIndex(r => r === 'available');  
console.log(index);

## 13. Out of Stock

const stock = [true, true, false, true];  
const anyOut = stock.some(s => !s);  
console.log(anyOut ? 'Some out of stock' : 'All available');

## 14. Product of Elements

const nums = [1, 2, 3, 4];  
const product = nums.reduce((a, b) => a \* b);  
console.log(product);

## 15. Extract Numbers

const mixed = [1, 'hello', 3, true, 5];  
const nums = mixed.filter(el => typeof el === 'number');  
console.log(nums);

## 16. Count Score Frequency

const scores = [5, 2, 5, 6, 5];  
const count = scores.filter(s => s === 5).length;  
console.log(count);

## 17. Reverse a Name

const str = 'coding';  
const reversed = str.split('').reduceRight((a, c) => a + c);  
console.log(reversed);

## 18. Emoji Playlist

const playlists = ['Rock', 'Jazz', 'Pop'];  
const updated = playlists.map(p => p + '🎵');  
console.log(updated);

## 19. First Prime

const isPrime = n => n > 1 && [...Array(n).keys()].slice(2).every(i => n % i !== 0);  
const nums = [4, 6, 8, 11, 15];  
const prime = nums.find(isPrime);  
console.log(prime);

## 20. Remove Duplicates

const ids = [1, 2, 2, 3, 4, 4, 5];  
const unique = ids.filter((v, i, arr) => arr.indexOf(v) === i);  
console.log(unique);