


Of course! Here are 10 more coding problems involving arrays of dictionaries in JavaScript that can be solved using array methods:


Problem 5: Capitalize Names Given an array of person objects, each containing "firstName" and "lastName", write a function that returns an array of full names where the first name is capitalized.

```
javascript  Copy code
const people = [
  { firstName: 'john', lastName: 'doe' },
  { firstName: 'jane', lastName: 'smith' },
  { firstName: 'james', lastName: 'brown' }
];

function capitalizeFirstNames(people) {
  // Your code here
}

console.log(capitalizeFirstNames(people));
// Expected output: ['John Doe', 'Jane Smith', 'James Brown']
```


Problem 6: Remove Duplicates Given an array of objects, each containing "id" and "value", write a function that removes duplicate objects based on their "id" property.

```
javascript  Copy code
const data = [
  { id: 1, value: 'apple' },
  { id: 2, value: 'banana' },
  { id: 1, value: 'cherry' },
  { id: 3, value: 'date' }
];

function removeDuplicatesById(data) {
  // Your code here
}

console.log(removeDuplicatesById(data));
// Expected output: [{ id: 1, value: 'apple' }, { id: 2, value: 'banana' }, { id: 3, value: 'date' }]
```

Problem 7: Find Common Elements Given two arrays of dictionaries, each containing "id" and "name", write a function that returns an array of common elements based on their "id" property.


```
javascript  Copy code
const array1 = [
  { id: 1, name: 'Alice' },
  { id: 2, name: 'Bob' },
  { id: 3, name: 'Carol' }
];

const array2 = [
  { id: 2, name: 'Bob' },
  { id: 3, name: 'Carol' },
  { id: 4, name: 'David' }
];

function findCommonElements(array1, array2) {
  // Your code here
}

console.log(findCommonElements(array1, array2));
// Expected output: [{ id: 2, name: 'Bob' }, { id: 3, name: 'Carol' }]
```

Problem 8: Group by Category Given an array of product objects, each containing "name" and "category", write a function that groups products by their categories.

```
javascript  Copy code
const products = [
  { name: 'iPhone', category: 'Electronics' },
  { name: 'Laptop', category: 'Electronics' },
  { name: 'Shirt', category: 'Clothing' },
  { name: 'Shoes', category: 'Clothing' },
];
```

```

    { name: 'Book', category: 'Books' }
  ];

function groupProductsByCategory(products) {
  // Your code here
}

console.log(groupProductsByCategory(products));
/* Expected output:
{
  Electronics: [ { name: 'iPhone', category: 'Electronics' }, { name: 'Laptop', category: 'Electronics' } ],
  Clothing: [ { name: 'Shirt', category: 'Clothing' }, { name: 'Shoes', category: 'Clothing' } ],
  Books: [ { name: 'Book', category: 'Books' } ]
}
*/

```

Problem 9: Average Age by Category Given an array of people with "name", "age", and "category", write a function that calculates the average age for each category.

```

javascript 
const people = [
  { name: 'Alice', age: 28, category: 'Engineer' },
  { name: 'Bob', age: 35, category: 'Manager' },
  { name: 'Carol', age: 22, category: 'Engineer' },
  { name: 'David', age: 40, category: 'Manager' }
];

function averageAgeByCategory(people) {
  // Your code here
}

console.log(averageAgeByCategory(people));
/* Expected output:
{
  Engineer: 25,
  Manager: 37.5
}
*/

```

Problem 10: Sort by Date Given an array of event objects, each containing "name" and "date" (a string in "YYYY-MM-DD" format), write a function that sorts events chronologically.

```

javascript 
const events = [
  { name: 'Meeting', date: '2023-08-15' },
  { name: 'Conference', date: '2023-09-10' },
  { name: 'Workshop', date: '2023-07-25' }
];

function sortEventsByDate(events) {
  // Your code here
}

console.log(sortEventsByDate(events));
/* Expected output:
[
  { name: 'Workshop', date: '2023-07-25' },
  { name: 'Meeting', date: '2023-08-15' },
  { name: 'Conference', date: '2023-09-10' }
]
*/

```

Problem 11: Find Key-Value Pairs Given an array of objects with various properties, write a function that returns an array of key-value pairs for a specified property.

```

javascript 
const data = [
  { id: 1, name: 'Alice', age: 28 },
  { id: 2, name: 'Bob', age: 35 },
  { id: 3, name: 'Carol', age: 22 }
];

```

```
function getKeyValues(data, property) {  
  // Your code here  
}
```

```
console.log(getKeyValues(data, 'name'));  
// Expected output: [ { key: 'Alice', value: 'Alice' }, { key: 'Bob', value: 'Bob' }, { key: 'Carol', value: 'Carol' } ]
```

Problem 12: Partition Even and Odd Numbers Given an array of numbers, write a function that partitions the array into two arrays: one containing even numbers and the other containing odd numbers.

```
javascript   
const numbers = [3, 8, 12, 5, 10, 7];  
  
function partitionEvenOdd(numbers) {  
  // Your code here  
}  
  
console.log(partitionEvenOdd(numbers));  
// Expected output: [[8, 12, 10], [3, 5, 7]]
```

These coding problems should provide you with a good opportunity to practice using array methods in JavaScript to work with arrays of dictionaries. Enjoy solving them!