

Destructuring Exercise



Object Destructuring 1

What does the following code return/print?

```
let facts = {numPlanets: 8, yearNeptuneDiscovered: 1846};
let {numPlanets, yearNeptuneDiscovered} = facts;

console.log(numPlanets); // ?
console.log(yearNeptuneDiscovered); // ?
```

Object Destructuring 2

What does the following code return/print?

```
let planetFacts = {
  numPlanets: 8,
  yearNeptuneDiscovered: 1846,
  yearMarsDiscovered: 1659
};

let {numPlanets, ...discoveryYears} = planetFacts;

console.log(discoveryYears); // ?
```

Object Destructuring 3

What does the following code return/print?

```
function getUserData({firstName, favoriteColor="green"}){
  return `Your name is ${firstName} and you like ${favoriteColor}`;
}

getUserData({firstName: "Alejandro", favoriteColor: "purple"}) // ?
getUserData({firstName: "Melissa"}) // ?
getUserData({}) // ?
```

Array Destructuring 1

What does the following code return/print?

```
let [first, second, third] = ["Maya", "Marisa", "Chi"];

console.log(first); // ?
console.log(second); // ?
console.log(third); // ?
```

Array Destructuring 2

What does the following code return/print?

```
let [raindrops, whiskers, ...aFewOfMyFavoriteThings] = [
  "Raindrops on roses",
  "whiskers on kittens",
  "Bright copper kettles",
  "warm woolen mittens",
  "Brown paper packages tied up with strings"
]

console.log(raindrops); // ?
console.log(whiskers); // ?
console.log(aFewOfMyFavoriteThings); // ?
```

Array Destructuring 3

What does the following code return/print?

```
let numbers = [10, 20, 30];
[numbers[1], numbers[2]] = [numbers[2], numbers[1]]

console.log(numbers) // ?
```

ES2015 Refactoring

In this exercise, you'll refactor some ES5 code into ES2015.

ES5 Assigning Variables to Object Properties

```
var obj = {
  numbers: {
    a: 1,
    b: 2
  }
};

var a = obj.numbers.a;
var b = obj.numbers.b;
```

ES2015 Object Destructuring

```
/* Write an ES2015 Version */
```

ES5 Array Swap

```
var arr = [1, 2];
var temp = arr[0];
arr[0] = arr[1];
arr[1] = temp;
```

ES2015 One-Line Array Swap with Destructuring

```
/* Write an ES2015 Version */
```

raceResults()

Write a function called **raceResults** which accepts a single array argument. It should return an object with the keys **first**, **second**, **third**, and **rest**.

- *first*: the first element in the array
- *second*: the second element in the array
- *third*: the third element in the array
- *rest*: all other elements in the array

Write a *one line* function to make this work using

- An arrow function
- Destructuring
- 'Enhanced' object assignment (same key/value shortcut)

```
raceResults(['Tom', 'Margaret', 'Allison', 'David', 'Pierre'])

/*
{
  first: "Tom",
  second: "Margaret",
  third: "Allison",
  rest: ["David", "Pierre"]
}
*/
```

Solution



See [Our solution](#).