

LEARNING

1. Function in JavaScript. Watch course section 2 part 26, 27, 29 & 33:
[Part 26](#) [Part 27](#) [Part 29](#) [Part 33](#)
2. Understanding function in JavaScript: <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Functions>

TASK

1. Try create a book purchasing function that has parameters detail of a book, percentage of the discount, percentage of tax. Then display all the parameters with additional data:
 - Amount of discount
 - Price after discount
 - Amount of tax
 - Price after tax

Note:

The function must have at least:

- Constant variable
- Boolean, number, string variable
- Assignment, addition, subtraction, multiplication, division operator

Book Purchase

Book Title:
101 Essays

Book Price (IDR):
300000

Discount Percentage:
50

Tax Percentage:
10

Purchase

Purchase Details

Book Title: 101 Essays
Book Price: Rp 300.000,00
Discount Amount: Rp 150.000,00
Price After Discount: Rp 150.000,00
Tax Amount: Rp 15.000,00
Price After Tax: Rp 165.000,00

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Book Purchase</title>
  <style>
```

```
body {
  font-family: Arial, sans-serif;
  background-color: #f4f4f4;
  margin: 0;
  padding: 0;
  display: flex;
  align-items: center;
  justify-content: center;
  min-height: 100vh;
}
.container {
  max-width: 600px;
  background-color: #fff;
  padding: 20px;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
  border-radius: 8px;
  text-align: center;
}
h1 {
  color: #333;
}
label {
  display: block;
  margin: 10px 0;
  color: #555;
}
input {
  width: 100%;
  padding: 8px;
  box-sizing: border-box;
  margin-bottom: 20px;
}
button {
  background-color: #e77dde;
  color: #fff;
  padding: 10px;
  border: none;
  cursor: pointer;
  border-radius: 4px;
}
button:hover {
  background-color: #8ab1ec;
}
h2 {
  margin-top: 20px;
  color: #333;
}
p {
```

```

        color: #555;
    }
</style>
</head>
<body>

<div class="container">
    <h1>Book Purchase</h1>

    <label for="bookTitle">Book Title:</label>
    <input type="text" id="bookTitle" placeholder="Enter book title">

    <label for="bookPrice">Book Price (IDR):</label>
    <input type="number" id="bookPrice" placeholder="Enter book price">

    <label for="discountPercentage">Discount Percentage:</label>
    <input type="number" id="discountPercentage" placeholder="Enter
discount percentage">

    <label for="taxPercentage">Tax Percentage:</label>
    <input type="number" id="taxPercentage" placeholder="Enter tax
percentage">

    <button onclick="calculatePrice()">Purchase</button>

    <h2>Purchase Details</h2>
    <p id="purchaseDetails"></p>
</div>

<script>
    function formatCurrency(amount) {
        return new Intl.NumberFormat('id-ID', { style: 'currency',
currency: 'IDR' }).format(amount);
    }

    function calculatePrice() {
        const bookTitle = document.getElementById('bookTitle').value;
        const bookPrice =
parseFloat(document.getElementById('bookPrice').value);
        const discountPercentage =
parseFloat(document.getElementById('discountPercentage').value);
        const taxPercentage =
parseFloat(document.getElementById('taxPercentage').value);

        const discountAmount = (discountPercentage / 100) * bookPrice;
        const priceAfterDiscount = bookPrice - discountAmount;

        const taxAmount = (taxPercentage / 100) * priceAfterDiscount;

```

```

const priceAfterTax = priceAfterDiscount + taxAmount;

const purchaseDetails = `
    Book Title: ${bookTitle}<br>
    Book Price: ${formatCurrency(bookPrice)}<br>
    Discount Amount: ${formatCurrency(discountAmount)}<br>
    Price After Discount: ${formatCurrency(priceAfterDiscount)}<br>
    Tax Amount: ${formatCurrency(taxAmount)}<br>
    Price After Tax: ${formatCurrency(priceAfterTax)}
`;

document.getElementById('purchaseDetails').innerHTML =
purchaseDetails;
}
</script>

</body>
</html>

```

Logic Test

1. Prime Number Checker: https://drive.google.com/file/d/1c-216JHBEzPlrlmjPxiKjbhFKoYXwm9K/view?usp=drive_link

The screenshot shows a Visual Studio Code editor with a file named 'Prime Number Checker.js'. The code defines a function 'isPrime(n)' that checks if a number is prime. It uses a loop from 2 to the square root of n. The terminal output shows the function being called with 10 and 43, returning false and true respectively.

```

1 function isPrime(n) {
2   if (n <= 1) {
3     return false;
4   }
5
6   for (let i = 2; i <= Math.sqrt(n); i++) {
7     if (n % i === 0) {
8       return false;
9     }
10
11     return true;
12   }
13 }
14
15 console.log(isPrime(10));
16 console.log(isPrime(43));
17

```

Terminal Output:

```

[Running] node "d:\WAGANG ZETTABYTE\day 6\Prime Number Checker.js"
false
true
[Done] exited with code=0 in 0.156 seconds

[Running] node "d:\WAGANG ZETTABYTE\day 6\Prime Number Checker.js"
false
true
[Done] exited with code=0 in 0.138 seconds

```

```

function isPrime(n) {
  if (n <= 1) {
    return false;
  }

  for (let i = 2; i <= Math.sqrt(n); i++) {

```

```
        if (n % i === 0) {  
            return false;  
        }  
    }  
  
    return true;  
}  
  
console.log(isPrime(10));  
console.log(isPrime(43));
```

Output:

False

True