Let's understand what's happening step by step.

**✅ Your Code:**

<p id="output">Hi, this is Sanjib</p>

<script>

function add(a, b) {

return a + b;

}

let result = add(3, 5);

**document.getElementById("output").innerText = result**; // Shows 8 in the paragraph

</script>

**🤔 Why do you see only 8 in Chrome and not the original <p> content ("Hi, this is Sanjib")?**

**👉 Because:**

Your JavaScript is **overwriting** the content of the <p> tag **after the page loads**.

**🔁 What Happens Internally:**

1. The HTML loads:

<p id="output">Hi, this is Sanjib</p>

✅ You see this briefly **before JS runs**

1. The JavaScript runs:

**document.getElementById("output").innerText = result;**

🔁 It **replaces** "Hi, this is Sanjib" with "8".

**💡 Key Concept: innerText**

* **innerText** sets or gets the text inside an HTML tag.
* When you do:

**document.getElementById("output").innerText = result;**

You are saying: “replace whatever was inside <p> with the value of result (which is 8).”

✅ If You Want to See Both:

You can combine them:

<p id="output">Hi, this is Sanjib</p>

<script>

function add(a, b) {

return a + b;

}

let result = add(3, 5);

**document.getElementById("output").innerText += " and the result is " + result;**

</script>

🖥️ Now output:

**"Hi, this is Sanjib and the result is 8"**

**what happens internally** when your HTML and JavaScript run together.

**🧠 What Happens Internally (Behind the Scenes)**

**🔹 HTML + JavaScript Example:**

<p id="output">Hi, this is Sanjib</p>

<script>

function add(a, b) {

return a + b;

}

let result = add(3, 5);

document.getElementById("output").innerText = result;

</script>

✅ Step-by-Step Process:

**1. HTML is Parsed:**

The browser reads the HTML from top to bottom.

✅ At this point:

<p id="output">Hi, this is Sanjib</p>

is shown in the browser — just text.

**2. Browser Finds <script> Tag:**

When the browser hits the <script> section, it pauses HTML rendering and runs the JavaScript line by line.

**3. Function Definition:**

function add(a, b) {

return a + b;

}

This defines a function but **does not run it yet**.

**4. Function is Called:**

let result = add(3, 5);

* Now the function is called with arguments 3 and 5.
* Inside the function:
  + a = 3
  + b = 5
  + return a + b → returns 8
* So result = 8

**5. DOM Manipulation Happens:**

**document.getElementById("output").innerText = result;**

* This selects the <p> tag with id="output"
* Then **replaces** its content "Hi, this is Sanjib" with "8"

**🎯 Final Output:**

* What you *see* in the browser is:

8

* The original text (Hi, this is Sanjib) is **replaced** by the JavaScript code.

**📦 Summary (Memory Tip):**

|  |  |
| --- | --- |
| Step | What Happens |
| 1 | HTML loads normally |
| 2 | Browser finds <script> and runs JS |
| 3 | Function is defined, then called |
| 4 | Result is calculated |
| 5 | DOM element is updated via JavaScript |

**Let's break down this specific line:**

**document.getElementById("output").innerText += " and the result is " + result;**

**✅ What This Line Does (Step-by-Step)**

**🔹 Initial State:**

<p id="output">Hi, this is Sanjib</p>

This means:

**document.getElementById("output").innerText**

**// returns "Hi, this is Sanjib"**

**🔹 += Explained:**

The += operator **adds to the existing value** (appends to it), instead of replacing it.

**🔹 " and the result is " + result:**

Assuming result = 8, this part becomes:

" and the result is " + 8 // = " and the result is 8"

**🔹 Putting it All Together:**

document.getElementById("output").innerText += " and the result is 8";

This is equal to:

document.getElementById("output").innerText =

"Hi, this is Sanjib" + " and the result is 8";

✅ So now the paragraph becomes:

<p id="output">Hi, this is Sanjib and the result is 8</p>

**🧠 Internally What Happens:**

1. Browser gets the current text in the <p> tag → "Hi, this is Sanjib"
2. JavaScript builds the new string:
   * "Hi, this is Sanjib" + " and the result is 8"
3. It sets the new combined value back into the paragraph using .innerText

**🔁 Difference Between = and +=**

|  |  |
| --- | --- |
| Code | **Result** |
| innerText = result | Replaces everything with "8" |
| innerText += result | **Adds** "8" to the existing text |