

**Assignment #2**

**Submitted by: Abdul Rehman**

**Roll no: 20021519-049**

**Submitted to: Ms. Ammara Javed**

Question # 1

**Create JavaScript code to calculate the sum of two integers and if the integers are same print their tippler of the sum.**

<!DOCTYPE html>

<html>

<head>

<title> Calculate Sum and Triple</title>

</head>

<body>

<h1>Sum and Triple</h1>

<p>Enter 1stinteger values:</p>

<input id="input1" type="text" />

<p>Enter 2nd integer values:</p>

<input id="input2" type="text" />

<br>

<button id="button">Calculate</button>

<br>

<p>Result:</p>

<input id="output" type="text" readonly />

<script>

function sumAndTriple(a, b) {

// Calculate the sum of the two values var sum = a + b;

// If the values are the same, return triple the sum if (a === b) {

return sum \* 3;

}

// Otherwise, return the sum return sum;

}

// Define a function to be called when a button is clicked function onButtonClick() {

// Get the values of the two input fields

var a = document.getElementById("input1").value; var b = document.getElementById("input2").value;

// Convert the values to integers a = parseInt(a);

b = parseInt(b);

// Calculate the sum and triple, or just the sum var result = sumAndTriple(a, b);

// Display the result in an output field document.getElementById("output").value = result;

}

// Add an event listener to the button to call the onButtonClick function when the button is clicked

document.getElementById("button").addEventListener("click", onButtonClick);

</script>

</body>

</html>



**TRIPPLE:**



Question # 2

**Write js code to check the integer and return true if it is between 40 to 200.**

<!DOCTYPE html>

<html>

<head>

<title>Check Integer</title>

</head>

<body>

<h1>Check Integer</h1>

<p>Enter an integer value:</p>

<input id="input" type="text" />

<button id="button">Check</button>

<p>Result:</p>

<input id="output" type="text" readonly />

<script>

// Define a function that checks a given integer and returns true if it is within 40 to 100 or equal to 200

function checkInt(n) {

return (n >= 40 && n <= 100) || n === 200;

}

// Define a function to be called when a button is clicked function onButtonClick() {

// Get the value of the input field

var n = document.getElementById("input").value;

// Convert the value to an integer n = parseInt(n);

// Check if the value is within the range or equal to 200 var result = checkInt(n);

// Display the result in an output field document.getElementById("output").value = result;

}

// Add an event listener to the button to call the onButtonClick function when the button is clicked

document.getElementById("button").addEventListener("click", onButtonClick);

</script>

</body>

</html>

**Output:**



Question # 3

**Write js code to calculate permutation and combinations.**

<!DOCTYPE html>

<html>

<head>

<title>Permutation and Combination</title>

</head>

<body>

<h1>Permutation and Combination</h1>

<p>Enter 1st integer values:</p>

<input id="input1" type="text" />

<p>Enter 2nd integer values:</p>

<input id="input2" type="text" />

<br>

<button id="button">Calculate</button>

<p>Permutation:</p>

<input id="permutation" type="text" readonly />

<p>Combination:</p>

<input id="combination" type="text" readonly />

<script>

function permutation(n, r) {

return factorial(n) / factorial(n - r);

}

function combination(n, r) {

return permutation(n, r) / factorial(r);

}

function factorial(n) {

var result = 1;

for (var i = 2; i <= n; i++) { result \*= i;

}

return result;

}

function onButtonClick() {

var n = document.getElementById("input1").value; var r = document.getElementById("input2").value;

// Convert the values to integers n = parseInt(n);

r = parseInt(r);

var perm = permutation(n, r); var comb = combination(n, r);

document.getElementById("permutation").value = perm; document.getElementById("combination").value = comb;

}

document.getElementById("button").addEventListener("click", onButtonClick);

</script>

</body>

</html>

**Output:**



Question # 4

**take input from user and calculate the area of triangle.**

<!DOCTYPE html>

<html>

<head>

<title>Triangle Area</title>

</head>

<body>

<h1>Triangle Area</h1>

<p>Enter the base value:</p>

<input id="base" type="text" />

<p>Enter the height value of the triangle:</p>

<input id="height" type="text" />

<button id="button">Calculate</button>

<p>Area:</p>

<input id="area" type="text" readonly />

<script>

function onButtonClick() {

var base = document.getElementById("base").value; var height = document.getElementById("height").value; base = Number(base);

height = Number(height);

**var area = 0.5 \* base \* height;**

document.getElementById("area").value = area;

}

document.getElementById("button").addEventListener("click", onButtonClick);

</script>

</body>

</html>

**Output:**

