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<!DOCTYPE html>
<html>
<head>
  <title>Simple Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      margin: 0;
      /* Adding a gradient background */
      background: linear-gradient(360deg, #70e1f5, #ffd194);
    }
    .calculator {
      background-color: #fff;
      padding: 20px;
      border-radius: 15px;
      box-shadow: 0 4px 20px rgba(0, 0, 0, 0.1);
      width: 300px;
      text-align: center;
    }
    input {
      width: 80%;
      padding: 10px;
      margin: 10px 0;
      border-radius: 5px;
      border: 1px solid #ccc;
    }
    button {
      padding: 10px;
      margin: 5px;
      width: 45%;
      cursor: pointer;
      background-color: blue;
      color: white;
      border: none;
      border-radius: 5px;
      transition: background-color 0.3s, transform 0.2s;
    }

    button:hover {
      background-color: #45a049;
      transform: scale(1.05);
    }
    #result {

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        margin-top: 20px;
        font-size: 20px;
        color: #333;
    }
</style>
</head>
<body>

<div class="calculator">
    <h2>Simple Calculator</h2>
    <input type="number" id="num1" placeholder="Enter first number" required><br>
    <input type="number" id="num2" placeholder="Enter second number (if needed)"><br>

    <button onclick="calculate('sum')">Sum</button>
    <button onclick="calculate('difference')">Difference</button>
    <button onclick="calculate('product')">Product</button>
    <button onclick="calculate('quotient')">Quotient</button>
    <button onclick="calculate('remainder')">Remainder</button>
    <button onclick="calculate('power')">Power</button>
    <button onclick="calculate('square')">Square</button>
    <button onclick="calculate('sqrt')">Square Root</button>

    <div id="result">Result: </div>
</div>

<script>
    function calculate(operation) {
        let num1 = parseFloat(document.getElementById('num1').value);
        let num2 = parseFloat(document.getElementById('num2').value);
        let result;

        switch (operation) {
            case 'sum':
                result = num1 + num2;
                break;
            case 'difference':
                result = num1 - num2;
                break;
            case 'product':
                result = num1 * num2;
                break;
            case 'quotient':
                result = num2 !== 0 ? num1 / num2 : 'Cannot divide by zero';
                break;
            case 'remainder':
                result = num1 % num2;
                break;
            case 'power':

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        result = Math.pow(num1, num2);
        break;
    case 'square':
        result = Math.pow(num1, 2);
        break;
    case 'sqrt':
        result = Math.sqrt(num1);
        break;
    default:
        result = 'Invalid operation';
    }

    document.getElementById('result').innerText = 'Result: ' + result;
}
</script>

</body>
</html>
```