

Discovery Projects

Save your Discovery Projects documents in the Projects folder for Chapter 9. Create the documents so they are well formed according to the HTML 5 DTD. Be sure to validate each document with the W3C Markup Validation Service.



Discovery Project 9-1

Create a Web page with five text boxes. Assign each text box's value attribute a value of zero. To each text box, add an `onchange` event handler that calls a function named `calcAvg()` and passes the function the value of that text box by referencing its document object, form name, and name and value attributes. Within the `calcAvg()` function, pass the five parameters to another function named `performCalc()`, assign the return value to a variable named `calcResult`, and then place the returned value to another text box with a name attribute of `result`. In the `performCalc()` function, calculate the average of the five numbers (by adding the five values and dividing by five), then return the result to the `calcAvg()` function. When you perform the calculation, use the `parseFloat()` function to ensure that the passed values are calculated as numbers. Save the document as **CalcAverage.html**.



Discovery Project 9-2

The formula for calculating body mass index (BMI) is $\text{weight} * 703 / \text{height}^2$. For example, if you weigh 200 pounds and are 72 inches tall, you can calculate your body mass index with the expression $(200 * 703) / (72 * 72)$. Create a Web page that contains three text boxes: one for your weight in pounds, one for your height in inches, and one that will contain the BMI result. Create a script with a function named `calcBMI()` that performs the calculation using the values in the weight and height text boxes, and assign the result to the BMI text box. Convert the value to an integer by using the `parseInt()` function. Reference the text boxes from within the function by using the document object, form name, and name and value attributes of each text box (in other words, don't use function arguments). Perform the calculation by calling the function from an `onclick` event in a button element. Save the document as **BMI.html**.