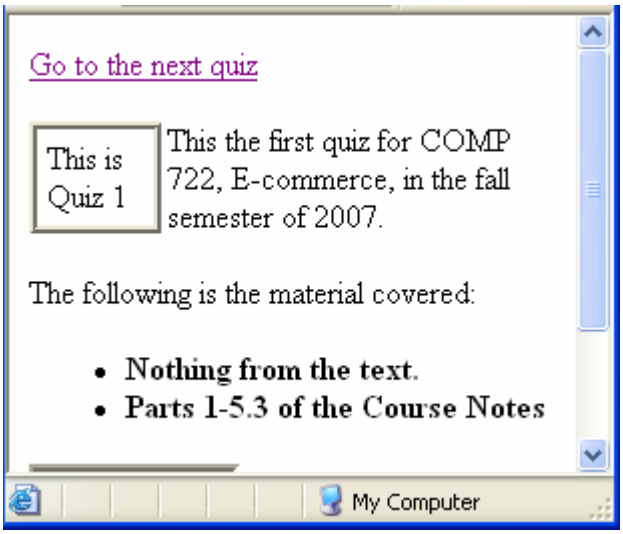
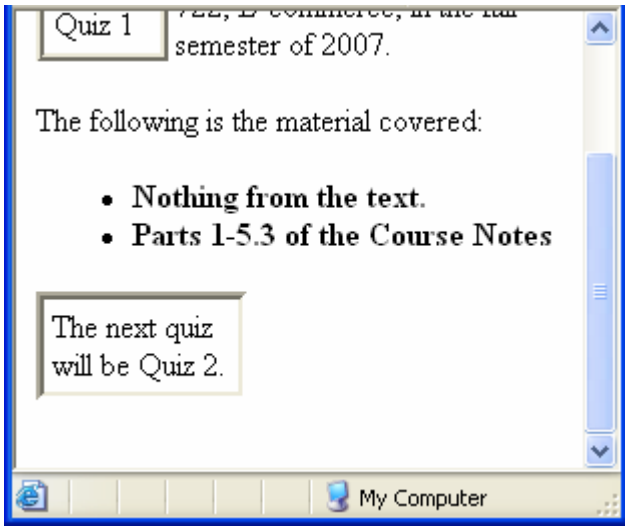
COMP 722 E-commerce Fall 2007 Quiz 1—Solutions

20 points total

1 (11 pts.). For this problem, you supply gaps in the code for an HTML document listed below and write an external stylesheet for it. The document as rendered when first opened is shown at left below. After the anchor **Go to next quiz** is clicked, the rendering becomes as shown at right below.





The stylesheet, `p1.css`, specified for this document, defines a class `leftBox` for `p` elements, which specifies a width of 25% of the screen, floating left, with a ridge border and padding 30% the size of a character. It also defines a class `leftBox` for `div` elements, which specifies a width of 40% of the screen, floating left, with an inset border and padding 25% of the size of a character. The stylesheet also specifies that `ul` elements have a left margin of ½ inch and that `li` elements be bold.

The gaps in the listing are labeled with Greek letters, which are repeated after the listing with descriptions of the corresponding missing code. You there supply the missing code. After that, you are asked to supply the stylesheet.

```
<html>
<head>
  <title>Problem 1</title>
  _α_____________________________________
       _______________
</head>
<body>
  <p>_β_____________Go to the next quiz</a></p>
  <p class="leftBox">This is Quiz 1</p>
  <p>
    This the first quiz for COMP 722, E-commerce,
    in the fall semester of 2007.
  </p>
  <p>The following is the material covered:</p>
  <ul>
    <li>Nothing from the text.</li>
    <li>Parts 1-5.3 of the Course Notes</li>
  </ul>
  _γ_________________
  <div class="leftBox">The next quiz will be Quiz 2.</div>
</body>
</html>
```

α (2 lines—1 pt.): The link to the stylesheet `p1.css`

Answer

```
<link rel="stylesheet" type="text/css"
        href="p1.css">
```

β (1 pt.): The opening tag of an anchor element that establishes an internal link to the location with name `next`

Answer

```
<a href="#next">
```

γ (1 pt.): An element that associates the name `next` with its location in the document. In this case, this element has empty content.

Answer

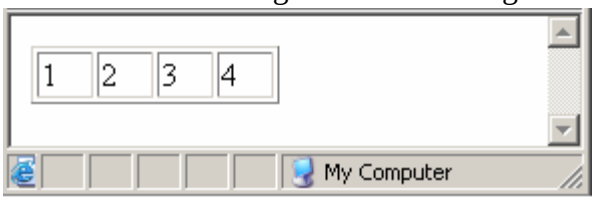
```
<a name="next"></a>
```

Now write the stylesheet (5 pts.).

Answer

```
p.leftBox { width: 25%; float: left;
            border-style: ridge; padding: 0.3em }
div.leftBox { width: 40%; float: left;
              border-style: inset; padding: 0.25em }
ul   { margin-left: 0.5in }
li   { font-weight: bold }
```

2 (9 pts.). The JavaScript file listed below with gaps defines two functions, `start` and `outTable`. Function `start` initializes `ar` to an empty array and `num` to an integer input from a prompt. It then prompts the user for `num` numbers, and these numbers are stored in `ar`. It then calls `outTable`, passing it the array `ar` of numbers just input. Function `outTable` has a single formal parameter, `nums`, which is an alias for the array `ar` in the call. This function outputs a table that consist of a single row containing the elements of `nums`. (The table is not partitioned into a head and a body, and there is no caption.) The screenshot at right shows the result when 4 is entered for the prompt for `num` and then 1, 2, 3, and 4 are entered for successive prompts. Note that we cannot use a `for/in` loop in `start` since the length of `ar` changes as elements are added, but you are expected to use a `for/in` loop in `outTable`.



The gaps in the listing are labeled with Greek letters, which are repeated after the listing with descriptions of the corresponding missing code. You there supply the missing code.

```
function start()
{
  var
    ar = new Array(),
    num = parseInt(
             window.prompt(
               "Enter the number of elements", "1" ) );

  _α_____________________________
    ____________________________________________________________;

  outTable( ar );
}

function outTable( nums )
{
  document.writeln( "<table border='1'width='50%'>" );
  document.writeln( "<tr>" );

  _β_____________________
    ____________________________________________;

  document.writeln( "</tr>" );
  document.writeln( "</table>" );
}
```

α (2 lines—3 pts.): A `for` loop that prompts the user `num` times for an integer and assigns it to the next (new) element of array `ar`. (You don't have to convert the string to an integer.)

Answer

```
for ( var i=0; i<num; i++ )
  ar[i] = window.prompt( "Enter the next number", "0" );
```

β (2 lines—3 pts.): A `for/in` loop that, on each iteration, outputs a string consisting of opening and closing tags for a table cell enclosing an element of array `nums`. The loop outputs the elements of `nums` (tagged in this way) in the same order in which they were originally entered.

Answer

```
for ( var i in nums )
  document.write( "<td>" + nums[i] + "</td>" );
```