Answers to practice questions for the final exam.

1. Write a CSS style specification rule that would make all unordered lists (`<ul>` tags) have square bullets and a purple background.

```
ul {
    list-style-type: square;
    background-color: purple;
}
```

2. Write three style rules for the following HTML snippet, as described below.

```
<p class="poetry" id="stanza1">
'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe
All mimsy were the borogoves
And the mome raths outgrabe.
</p>
```

a). Write a rule that would make this and all other paragraphs appear in 12-point font.

```
p {
    font-size: 12pt;
}
```

b). Write a rule that would make this and other paragraphs in the same class as this example appear in italic type.

```
p.poetry {
    font-style: italic;
}
```

c). Write a rule that would make this particular paragraph only appear in bold type.

```
#stanza1 {
    font-weight: bold;
}
```

3. Consider the following fragment of JavaScript. Give the output that would be produced in the browser window by the pieces of code in parts (a) through (d) below.

```
// Part (a)
var i
for (i = 2; i < 8; i += 2) {
    document.writeln("The value of i is "+i+".<br />")
}

// Part (b)
var s = "Able was I ere I saw Elba."
document.writeln(s.indexOf('I'))
document.writeln("<br />")
```

```
      // Part (c)
      document.writeln(s.indexOf('I',11))
      document.writeln("<br />")

      // Part (d)
      document.writeln(s.substring(12,19))
      document.writeln("<br />")
```

a). Output:

```
      The value of i is 2.
      The value of i is 4.
      The value of i is 6.
```

b). Output:

```
      9
```

c). Output:

```
      15
```

d). Output:

```
      re I sa
```

4. Consider the following HTML page. Explain how you would modify the given HTML in order to make the background change to red under the specified circumstances, by calling `redBG()` through an event handler.

```
      <html xmlns="http://www.w3.org/1999/xhtml">
      <head>
      <title>Test Page</title>
      <script language="Javascript" type="text/javascript">
      <!--
      function redBG() {
            // changes the document background to red.
            document.bgColor = "red"
      }
      //-->
      </script>
      </head>

      <body>
      <a href="link.html">A link</a>
      </body>
      </html>
```

a). Immediately when the page appears.

```
<body onLoad="redBG()">
```

b). If the page is not completely loaded for some reason.

```
<body onAbort="redBG()">
```

c). If another window is opened on top of the current one.

```
<body onBlur="redBG()">
```

d). If the user clicks on the link.

```
<a href="link.html" onClick="redBG()">A link</a>
```

e). If the user double-clicks on the link.

```
<a href="link.html" onDblClick="redBG()">A link</a>
```

f). If the user moves the mouse over the link, and then away.

```
<a href="link.html" onMouseOut="redBG()">A link</a>
```

5. Below are pairs of JavaScript commands. For each pair, (i) determine whether a function should be used to carry out the work of both lines, and (ii) if so, give the function definition and set of calls to it that would replace the original pair or commands. An example has been done for you.

a).
```
document.writeln("My favorite color is blue.<br />")
document.writeln("My favorite color is red.<br />")
```

Ans:
```
function tellColor(clr) {
        // prints a message about my favorite color.
        document.writeln("My favorite color is "+clr+".<br />")
}
tellColor("blue")
tellColor("red")
```

b).
```
total += price1+0.05*price1
total += price2+0.05*price2
```

Ans:
```
function addTax(price) {
        // adds tax onto the price.
        return price+0.05*price
}
total += addTax(price1)
total += addTax(price2)
```

c).
```
document.writeln("This message will appear in the body.")
alert("This message will appear in a pop-up window.")
```

It doesn't make sense to use a function here. The differences between the two lines include not just the **values** printed ("`This message will appear in the body.`" vs. "`This message will appear in a pop-up window.`") but also the actions taken with those values (`document.writeln()` vs. `alert()`). The two lines don't have enough in common to justify making them a function.

d).
```
document.getElementById("link1").href = "error.html"
document.getElementById("link2").href = "home.html"
```

Ans:
```
function changeLink(link,newhref) {
        // changes a link to point to the specified page.
        document.getElementById(link) = newhref
}
changeLink("link1","error.html")
changeLink("link2","home.html")
```

6. Give a complete HTML document that would create a set of frames as follows: the right half of the browser window is a single frame named `fright` showing the file `right.html`. The left half of the browser window is divided into an upper portion 135 pixels tall, and two lower portions taking up one third and two thirds of the remainder of the window, respectively. These three frames should display the files `logo.jpg`, `toc.html`, and `help.html`, respectively, and should be named `flogo`, `ftoc`, and `fhelp`.

```
<html>
<head>
<title>Problem #6</title>
</head>
<frameset cols="50%,*">
    <frameset rows="135,*,2*">
        <frame name="flogo" src="logo.jpg" />
        <frame name="ftoc" src="toc.html" />
        <frame name="fhelp" src="help.html" />
    </frameset>
    <frame name="fright" src="right.html" />
</frameset>
</html>
```

```
7.  Write a form that will collect information from a visitor and send
it to be processed by JavaScript in the page summary.html.  The form
should collect the following information:  petName (the name of a pet),
petType (which can be either Dog, or Cat, or Bird) and pedigreed (which
is either true or false, and should start out checked).  Your form
should include a Submit button, and should demonstrate proper use of
the <label> tag.

<form action="summary.html" method="get">
  <label for="petName">Pet's name:</label>
```

```
        <input type="text" name="petName" /></br />
        <label for="petType">The pet is a:</label><br />
        <input type="radio" name="petType" id="CatType" value="Cat" />
        <label for="petType">Cat</label></br />
        <input type="radio" name="petType" id="DogType" value="Dog" />
        <label for="petType">Dog</label></br />
        <input type="radio" name="petType" id="BirdType" value="Bird" />
        <label for="petName">Bird</label></br />
        <label for="pedigreed">Pedigree?</label>
        <input type="checkbox" name="pedigree" value/></br />
    </form>
```

8. Consider the an HTML document with a table in it called `table1`, and a particular cell in the table called `cell23`. Explain how you would access specific properties of `cell23` under the document object models specified below (give a piece of JavaScript).

```
<table id="table1">
...
    <td id="cell23">Cell 23 contents</td>
    ...
```

a). How would you refer to the background color of `cell23` in the Netscape 4 DOM?

```
document.layers["cell23"].backgroundColor
```

b). How would you refer to the text color of `cell23` in the Microsoft IE DOM?

```
document.all["cell23"].style.color
```

c). How would you refer to width of `cell23` in the W3C DOM?

```
document.getElementById("cell23").width
```

d). How would you refer to the cell border of `cell23` in the Netscape 4 DOM?

```
document.layers["cell23"].border
```

e). How would you refer to the contents of `cell23` in the Microsoft IE DOM?

```
document.all["cell23"].innerHTML
```

f). How would you refer to the cell padding of `cell23` in the W3C DOM?

```
document.getElementById("cell23").style.padding
```