CSc 055: Final Exam Review Questions

These are all scripting problems since that's what we've done since the last midterm. The final is cumulative, though, and you should look at the other review sheets I've handed out previously for a more thorough review.

The completed "IF statements" demo did not include scripts for several of the buttons there. They make great review questions, so here is what those functions do. You'll have to look at the demo to see the form element names. Try writing these scripts directly into the demo so you can be sure they work.

1. Write a function named `isMiddleBlank` that checks if the middle field is blank. If so, tell the user "yes" with an alert box and put the word "blank" in the right field. If the middle field is not blank, tell the user "no" with an alert box and put the phrase "filled in" into the right field.

2. Assume that the left and right fields each contain a number. Write a function named `findbigger` that uses an alert box to tell which box has the bigger number. You may assume that the two numbers are not equal. **PITFALL ALERT**: test this with a multi-digit number, such as 11 in one field and 9 in the other.

3. Assume that the left and right fields each contain a number. For this problem, they might be equal. Write a function named `findbiggerOrEqual` that alerts "left is bigger" or "right is bigger" or "they are equal" depending on which case it is.

4. Assume the left field contains a number. Write a function named `isLeftPosNegZero` that puts either the word "positive", the word "negative", or "zero" into the right field depending on what number is in the left field.

5. Write a function named `findWaldo` that looks for the word `waldo` (all lower case!) in any of the three fields. It will alert "left", "middle", "right", or "none" to tell the user which of the three fields it finds it in, or if it doesn't appear at all. You may assume that `waldo` will not appear in more than one field.

You should try to do the following problems <u>on paper</u>. This will keep you from using the computer as a crutch to tell you what to type. Assume all elements are within a form called "myform".

6. We would like a text field named "sample" and a regular button both named and labeled "mybutton" on a web page. Upon clicking this button, a function named "tester" should be called that would place the sentence "this is a test" in the text field. Write the HTML that would make the form elements, and then write the JS to implement the desired behavior.

7. Study the following html:

```
<input type="text" name="source" value="12" />
<input type="text" name="result" />
<input type="button" name="subtract" value="subtract" />
```

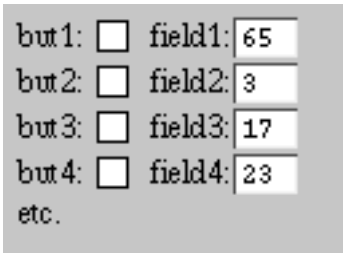
Clicking on the button will take the contents of “source”, subtract 5 from it, and place the answer in “result”. Write the JS to do this. (Assume the contents of "source" will be any number, not just the default.)

8. There are two text fields: "tweedledee" and "tweedledum". There is also a button named “move”. Write a function that will do the following when “move” is pressed:

   If both fields are empty, prompt the user for a new word and place it into tweedledee. Otherwise if tweedledee is not empty, move its contents to tweedledum, leaving tweedledee empty. If tweedledum is the non-empty one, move its contents to tweedledee, leaving tweedledum empty. The end result is that if one of the fields has text in it and the other one is blank, pressing “move” repeatedly will make the contents of the field bounce back and forth between the two text fields. Don’t worry about the case of both fields being full.

9. There is a multi-line text field named “credit” on a web page. There is also a regular button called “toggle”. Write JS code so that when the button is clicked on, the words “hello there” will appear in the text field if it is empty, else it will clear the field if it has text in it (any text). Thus the same button will make “hello there” both appear and disappear in “credit”. Such a command that is used both to turn on and to turn off something is called a **toggle.**

10. There are 10 text fields named "field1", “field2”, ... , all the way to “field10”. There are also 10 checkbox buttons named “but1”, “but2”, ... , all the way to “but10”. “but1” is next to “field1”, “but2” is next to “field2”, etc. Like this:



Each field contains a number in it. (There are specific numbers shown in the picture, but they could be any numbers.) There is also a regular button named “average” on this form. Write JS code so that when “average” is pressed, it will find the average of all the numbers in the fields **whose corresponding checkboxes are on**. For example, in the picture above, if the user had turned “on” but1 and but3 **only**, “average” would find the average of 65 and 17. If the user doesn’t turn any of the checkboxes on, the user should be told in a dialogue box. Otherwise, the average should be computed and displayed to the user in a dialogue box.