CS/INFO 3300
Homework 1
Due before class Monday 2/3

Each problem is worth 20 points. Your work should be in the form of an HTML file with one <p> element per problem. Wrap any Javascript code for each problem in a <script> element. For example:

```
<p>Problem 0: We use the var statement to declare a variable and
set it to a value.
<script>
var x = 100;
</script>
</p>
```

Put this file in a zip archive and upload it to CMS.

1. Which of the following are NOT Javascript types (that is, will not be returned by the typeof function)?

```
int number string object array function
```

2. Rewrite the following c-style for loop as a "forEach"-style loop.

```
var fruits = ["apple", "pear", "orange"];

for (var i = 0; i < 10; i++) {
  console.log(i + " " + fruits[i]);
}
```

3. Define a variable called "calculator" and set its value to an object. We will run the following command using this object:

```
calculator.add(10).times(3).minus(6).divideBy(8).x;
```

This object should contain the following:

A. A numeric variable called "x" with initial value 0. (5 pts)
B. Functions "plus", "minus", "times" and "dividedBy" that take one argument and

carry out the required operation on x. (10 pts)
C. Each of these functions should contain a "return" statement that will support the cascading statement above. (5 pts)

4. Create a new calculator object that will support this code:

```
var addOne = function (x) { return x + 1; }
calculator.operation(addOne).x
```

5. In the <p> element for this problem, create three (or more) <span> elements that have the class "findable". Write a Javascript command that selects all of these elements (5 pts). Does the value returned support all the same functions and variables as the "fruits" array we created in an earlier problem (5 pts)? Write a c-style for loop that sets the inner text of each span element to its order on the page (ie "0", "1", ...) (10 pts).