ANNOUNCEMENTS

- Check class announcements daily
- You must implement programming projects by yourself
- Web Fonts by Google:
  - http://code.google.com/apis/webfonts/
FOR LOOP

- Iteration statement
- General form

```plaintext
for (initialize; test; expression)
  statement
```

basically equivalent to

```plaintext
Initialize
while (test) {
  statement
  expression
}
```

- If more than one statement use {} 
- Semicolons are required
- Beware of infinite loop if semicolon after parenthesis
- Example: ForLoop.html
- Example: ForLoopVariations.html
You can combine if, while and do while statements in several ways

- You can have several nested if statements
- You can have if statements within while statements
- You can have while statements within if

**Example:** NestedLoops.html

**Example:** MultiplicationTable.html
Problem → You need to keep track of the scores of students in a class
  - Declaring and handling 50 variables is not an easy task
  - Arrays come to the rescue
Array → Collection of values that can be treated as a unit or individually
  - var a = new Array(4)
You can visualize an array as a set of variables one after another
Indexing → We access an element using [ ]
  - First element associated with index 0 (e.g., a[0])
An element of an array can be of any type and an array can hold different types of elements
  - The length property represents the length of the array (e.g., a.length)
  - We can print the contents of an array by using alert
Example: ArrayEx.html
DEFINITION OF ONE-DIMENSIONAL ARRAYS

- Via array literal → comma separated list of elements within square brackets
  
  ```javascript
  var a = [2, 3, 5];
  var b = []; // empty array
  ```

- Specified in the Array constructor
  
  ```javascript
  var c = new Array();
  var e = new Array(4); // defines array of size 4
  ```
TOP-DOWN DESIGN

- What is Top-Down Design?
- Let’s go over an example
  - Video Store Software
- Bottom-Up Design