**JavaScript Functions**

**Review:** Variables and Data Types

* What is a variable?
  + How is it used?
  + Do an example
* What is a Data Type?
  + What are the primitive data types
  + How does JavaScript determine the type of a variable?
  + When does type matter?
  + Do an example

**Functions**

Linking to an external JS file  
We often put all our functions in a separate file   
In the <head> element:

<script src="functionPractice.js"></script>

* Definition of a function in math (input, operation(s), output)  
  *f(x) = 2x*  
  **Example:** Coffee grinder
* Functions we’ve already seen:
  + document.write
  + prompt
* A new function:
  + alert
* Writing (defining) a function  
  We can use pre-written functions, or write our own
  + **Example**: Hello somebody (10 m.)
    - A function with a single parameter (put it in functionPractice.js)  
      function hello(name)  
      {  
       alert(“Hello” + name);  
      }
    - Call the function in functionPractice.js:  
       hello(“Brian”);  
       document.write("<p>Hello " + name + "!</p>");
    - Now call it from a <script> element in a web page
  + Functions can have no parameters:  
    function helloWorld()  
    {  
     alert(“Hello world”);  
    }
  + Functions can have return values:  
    function toPercent(decimal)  
    {  
     return decimal \* 100;  
    }
* Parts of a function:
  + header
    - name
    - parameters (optional)
  + Body
    - code that does operations
    - return statement (optional)