Review: what is a function?

A function is a **body of code** that
- Has **name**
- Can take incoming **arguments**
- Can return a **value**

```javascript
function simpleFunc(other_num) {
    // A function definition.
    int num = 3;
    alert(num + other_num);
    return num + other_num;
}
```
Review: using a function.

Once a function has been defined, it can be called in the code like the built in Javascript functions.

```javascript
//Add a few numbers together. function simpleFunc(other_num)
var num1 = 43;
var num2 = 324;
var num3 = 2;

simpleFunc(num1);
simpleFunc(num2);
num3 = simpleFunc(num3);
```

What is num3 at the end of this execution?

Review: why use functions?

Functions allow us to use a single block of code many times with different inputs.

- This allows us to avoid copy-pasting code, which is tedious and error-prone.
- This makes our code smaller, more readable, and more maintainable.
- We can combine functions to achieve more complex behaviors.

The behavior of a function call will be the same as if you had copy-pasted the body of code in.
Exercise: Goofy Blogging

Write a function that takes in 5 arguments

- title -- a string
- nouns -- an array of strings
- verbs -- an array of strings
- adjectives -- an array of strings
- sentences -- an integer

The function should print the title and then print sentences number of random sentences. Each sentence should have an article, a noun, a verb, an article, an adjective (half of the time), and a noun.

The nouns, verbs, and adjectives will be taken from the argument arrays. The articles should be defined within the function. Statistically half of the sentences should have an adjective.

Use the function to create five blog posts.

Exercise: things to do

1. I'll need to write a function that takes 5 arguments.
2. I'll need to check my input arguments.
3. I'll need to define some articles.
4. I need to generate a random sentence.
   1. I need to generate a random index for each word.
   2. I need a random number to decide if I print an adjective.
5. I need to print the title and random sentence.
6. I need to call the function five times to create the goofy blog.
Exercise: pseudocode

function goofy(title, nouns, verbs, adjectives, sentences)
{
    // Check my input here.

    // Define the articles here.
    // Have a for loop from 0 to #sentences here
    // Generate some random indices into nouns, verbs, adjs.
    // Combine some article, noun, and verb.

    // Flip a coin to see if I add an adjective.

    // Add the last noun.

    // Print the title and post.
}

Exercise: solution

See http://www.cs.unc.edu/~wilkie/goofyblog.html