Section 11: Arrays

Exercise Solutions:

1) The following Processing statements contain errors. Find and fix them all.

   Erroneous code:                                                                 Fixed code:
   int[3] intArray;                                                             int[] intArray;
   intArray = {0, 3.14, 6};                                                   intArray = {0, 3, 6};
   intArray[] = new int[7];                                                   int[] intArray = new int[7];
   intArray[i+1] = intArray[i];                                               intArray[i+1] = intArray[i];

2) Write out a Processing statement below to declare and initialize an array that holds the colors of a tricolour flag of your choice (e.g. France, Germany, India, Mexico, Russia). Make sure that you give it an intuitive and legal array name.

   color[] mexico = { color(0,255,0), color(255), color(255,0,0) };

3) Complete the function below that adds 1 to every index of an array of floats:

   void addOne( float[] ar ) {
       int i = 0;
       while( i < ar.length ) {
           ar[i] = ar[i] + 1;
           i = i + 1;
       }
   }

4) Write out Processing code below to declare and initialize a length variable to 50, create an integer array of that length (using the variable), and then use a loop to initialize the array values to their indices (i.e. index 0 holds value 0, index 1 holds value 1, etc.).

   int len = 50;
   int[] ar = new int[len];
   for(int i = 0; i < len; i = i + 1) {
       ar[i] = i;
   }

5) Describe in a sentence what you think the following function accomplishes. Hint: make a simple test array and see what this function does to it! It reverses the ordering of the elements of an array!

   void mystery( int[] ar ) {
       int temp, front = 0, back = ar.length - 1;
       while( front < back ) {
           temp = ar[front];
           ar[front] = ar[back];
           ar[back] = temp;
       }
   }