Array Example to Find a Maximum Value

Steps:

1. use constant to size array
2. fill up array, completely, with scanner input
3. set (temp) max to be first value
4. compare first value to each entry in array, if any value > max, this is new max value

Note: this does NOT sort values, that is another method to find max

```java
import java.util.Scanner;

public class ArrayMax {

  public static void main(String[] args) {

    Scanner scnr = new Scanner(System.in);

    final int NUM_ELEMENTS = 8;                        // Number of elements
    int userVals[] = new int[NUM_ELEMENTS];            // Array of user numbers
    int i, maxVal;                                     // Loop index, Computed max

    // Prompt user to populate array
    System.out.println("Enter " + NUM_ELEMENTS + " integer values...");

    for (i = 0; i < userVals.length; ++i) {
      userVals[i] = scnr.nextInt();
      System.out.println("Value: " + userVals[i]);
    }

    // set temp largest (max) number to first value in array
    maxVal = userVals[0];

    for (i = 0; i < userVals.length; ++i) {            // if any value > first, set to new max
      if (userVals[i] > maxVal) {
        //System.out.println("New Max Value: " + userVals[i]);
        maxVal = userVals[i];
      }
    }
    System.out.println("Max: " + maxVal);
  }
}
```