CMSC110 Introduction to Computing

Lab #12: Arrays practice
Week of November 21, 2016

With Exam 2 coming up in just two weeks, it may be helpful to review some basics: array processing with loops. The website codingbat.com has a series of self-graded exercises. These exercises are stated in Java, but the fragment of Java that they require is identical to the Processing we have been studying in class. The only exception is the **public** keyword that prefixes some functions in Java – just ignore this!

1. middleWay
2. rotateLeft3
3. commonEnd
4. frontPiece
5. isEverywhere
6. sum28
7. twoTwo
8. matchUp
9. bunnyEars2
10. powerN

These next few are recursive functions on Strings. You may wish to look up String functions in the reference. (Java Strings are the same as Processing Strings.) In particular, you will need substring, and remember that equality tests should use equals, not ==. For example:

```
// returns whether or not 'x' starts with "the"
boolean startsWithThe(String x)
{
      String prefix = x.substring(0, 3); // extract first 3 chars
      if(prefix.equals("the")) // NB: .equals(), not ==
      {
            return true;
      }
      else
      {
            return false;
      }
}

// or, more succinctly
boolean startsWithThe(String x)
{
      return x.substring(0, 3).equals("the");
}
```

11. countX
12. noX
13. nestParen (this one is harder)