

### Lab 3 - (4 points)

The Birthday Coincidence (See slide 38 of the "Arrays and ArrayLists" lecture notes):

Suppose that people enter an empty room until a pair of people share a birthday. On average, how many people will have to enter before there is a match?

1) Write a program `BirthdayCoincidence.java` to simulate one experiment. The output of this program is the number of people that were added until a pair had matching birthdays.

2) Then write a program `BirthdayCoincidenceAverage.java` to repeat the experiment many times and estimate the average value. The number of trials to repeat the experiment should be specified via a command-line argument. Try it with several very large numbers of trials. The output of this program is the average number of people that were added until a birthday match occurred. Assume birthdays to be uniform random integers between 1 and 365.

**Due Date: Friday June 2 (midnight), 2017**

Submit one zipped file that contains a folder containing `BirthdayCoincidenceAverage.java` with output results from a sample execution.