Extra Credit 3

Due: February 22, 2019 — note extension

Points: 30

1. **(20 points)** Modify your program in homework 3 question 2 to print out a list of the breath numbers that have the maximum and minimum difference in the volume of air inspired and expired.

2. **(10 points)** Modify the above program to handle the plurals, commas, and "and"s properly. So, for example, your output is to look like the following (again, the numbers are wrong):

   Average volume of air inspired is 120.15 ml with a standard deviation of 328.90
   Average volume of air expired is 121.82 ml with a standard deviation of 561.20
   The maximum difference between air inspired and expired is 289 for BN 1000
   The minimum difference between air inspired and expired is 5 for BNs 1234 and 5678

   or, if there are more than 2 breath numbers with the minimum difference, the last line would look like:

   The minimum difference between air inspired and expired is 5 for BNs 1234, 3456, 4567, and 5678