**Name: Session:**

**Programming I**

**Working with File Practice**

**Lab Exercise 10.31.2019**

**Print out your source code, attach to this sheet and turn-in.**

1. Write a program that will read all lines from a file. Write all of the words backwards to another file. The input file is named forward.txt and the output file is backwards.txt.
2. Write a program that will read all lines from a file. The program should remove all words less than 3 characters and write the remaining words to a file. The output file should be the same as the input file less the short words. The input file is regular.txt and the output file should be shorter.txt
3. A quadratic equation has the form  . The roots of this polynomial can be calculated as follows:



The program should read the values of a, b, and c from a disk file (data.txt). The program should then calculate the roots and write them to a disk file (roots.txt). If the discriminant b2-4ac is negative, write the string “No real roots” to the file.

Extra Credit:

Modify problem 3 to handle complex numbers