**GENTLE TEST CASES:**

1. Testing zeros in the puzzle.

**Description:** This test is to check the puzzle in the text file if it has zeros.

**Justification:** I am testing if the puzzle is completed of not. To see if my code can detect an unfinished puzzle, and print a message to the user to complete it while showing parts of puzzle that are unfinished in the command line.

Puzzle2.txt tests out this function.

2. Testing wrong puzzles.

**Description:** This test is check if the puzzle is wrong according to rules of Sudoku

**Justification:** Testing the basic rules of the Sudoku is essential to find out if the program actually works. So I tested out incorrect Sudoku puzzles see if the programmed rules in my code will pick out on these errors. I also tested parts of the program (tested functions that checked the rows, columns, and 3 by 3 regions) to see if they are broken or non-functional.

Puzzle1.txt is a correct puzzle.

**EDGE TEST CASES:**

1. Testing row count.

**Description:** This test is to check if the puzzle in the text file has 9 lines, not more or less.

**Justification:** I wanted to test out if my code can be detect that there are more than 9 by 9 elements in the text file. I’ve programmed specific rules that should be able to detect the irregularities in the text file (10 rows, or 11 columns for example), and print a message to the user about it.

Puzzle3.txt, puzzle4.txt, puzzle5.txt test out these functions out.

2. Testing letters.

**Description:** This test is to check if there are letters in the puzzle within the text file.

**Justification:** I wanted to test out if my program would be able to detect illegal or invalid inputs like letters. I’ve added a lines of code that should be able to detect letters using regex function.

Puzzle6.txt tests this function out.

3. Testing if file does not exist.

**Description:** This test is to check if the program can detect file not found and print a readable message.

**Justification:** I wanted to see if my program can detect the text file inputted actually exists and tell the user in a nice, concise message that the file is not found.