Quiz Project

Goal: The goal of this project is to have a python read a txt file given to the program by command line argument, parse each line into a question and answer, ask a user to answer each question, score the quiz, and give a grade and which questions were wrong.

This is part 1 of the project. Part 2 will be implementing a GUI (graphical user interface) that will display each question

Requirements:
Be able to read in command line argument
Be able to handle any number of questions
Be able to verify each question has an answer
Be able to verify each question has a point value
Be able to display data in a nice fashion for a user to answer
Be able to give a pretty results output

Input:
The input will be given in a comma separated format and there will only be 1 question per line. They will look like the following:
(1/2) + (1/4) = ?,3/4,1

There are 3 sections that go towards each question:
1. The question. This will be a string consisting of anything except commas. The string should be shown as the question to the user.
2. The answer. This will be a string that can contain anything except commas. There must always be one answer to each question but if the proctor would like to assign more than one answer, they may do so by putting | between each answer like the following:
       1/2|0.5|one half|half of one
   This tells you that there is 4 answers
3. The point value. This will be given as an integer. If not an integer then it is invalid.

If a single line is invalid, do not run the program and tell the user which line is invalid and why. If all lines are valid then proceed to the quiz.

Output –
You may have the output look however you want but it must consist of a score, a grade percentage (out of 100%), a letter grade, and which questions you got wrong and the answers to them.

Helpful function ideas–
getFile() – Checks If the file exists and opens it for future use. Should return true or false
checkFile() – A function that will go through the file and verify it is valid. Should return a list of tuples (will teach you what that is and what it means)

verifyLine() – verify that a line is valid and shoud return a singular tuple consisting of the question, answer, and point value

checkLineAnswers() – given a string, it should be able to split it into multiple strings separated by | and return a tuple of strings each being a single possible answer

proctorQuiz() – should take in a list of tuples and be able to administer a quiz from it. Should return list of tuples that are the questions wrong, points achieved, and total points possible

checQuizAnswer() – this should check if the given answer matches any of the correct answers. Should return a Boolean value

giveResults()- should take in a list of tuples, points achieved and points total and display the results in a nice way

Topics to learn before starting –
How functions work and how to return an answer from a function
What are tuples and how can you use them
How to read command line
How to read a file
How to split a file by lines
How to split a string by a character
How to match 2 strings
How to create a list
How to add to a list
How to iterate through a list with a for loop