1.      Design and implement a Java program that computes a speeding fine according to the speed limit, the actual speed, the speeding zone and the processing fee. The program should output the fine based on the user’s input.

* there are 3 different zones: highway, residential, and school
  + for highway, the fine is 5 times the amount of speed excess plus processing fee
  + for residential, the fine is 7 times the amount of speed excess plus processing fee
  + for school, the fine is 9 times the amount of speed excess plus 100 plus processing fee

1. Additional requirements include:

a.       Use JOptionPane.showInputDialog() methods for your user to input their data

b.      Use JOptionPane.showMessageDialog() methods to display your result.

c.       Include a comprehensive set of application test data that you used to test your program. Your test data can be shown in a table that includes input data, expected output, actual output and pass/fail results from the test.  Your test data can be presented in the form of a table as follows:

Example application test data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Actual Output** | **Did Test Pass?** |
| speed limit: 75 actual speed: 88 zone: highway  fee: 100 | 165 |  |  |
| Additional test cases here. Be sure to test all logic. |  |  |  |
|  |  |  |  |