SQA Assignment 5 – Spring 2021

Due: 11:59PM, Friday, 3/19
Questions: Contact XIAOPU PENG <xzp0007@auburn.edu>

Problem Descriptions:

Suppose we are to test an car insurance calculation system. An input to the system (X, Y) contains a **boolean value X** and a **nonnegative integer Y**. If X = 0, it means the insurer is currently younger than or at 24 years old, and 1 if older. Any other value of X is invalid input. Y represents the net value of the vehicle insured. Round the output to 2 decimal places.

Design test cases to cover all boundaries for this system. Some invalid test cases must also be designed. Note: a test case should contain both input and expected output, i.e., ((X, Y), fee). You should test the cases **beyond, on, and below** the boundary.

A hypothetical insurance company's fee brackets are shown below, and the fee is just the product of car value and rate. Any car value lower than $1000 is not insurable anymore:

Age 25- Brackets

Car Value	**Rate**
≥$1,000.00	3%
≥$5,000.00	4%
≥$20,000.00	5%

Age 25+ Brackets

Tax Bracket	**Rate**
≥$1,000.00	2%
≥$5,000.00	3%
≥$20,000.00	4%