**Step 5:**

When initially asked, “How many diesel Volkswagen owners were surveyed?”

I input the value of 500.

Subsequently, when asked the question, “How many of them say they will take a payment and keep their car?”

I input the value of 650.

Finally, when I was asked the question, “How many of them say they will return their car for a refund?”

I input the value of 350.

This produced output that was clearly incorrect. The output read, “130.0% say they will keep their car. 70.0% say they will demand a refund. More people will keep their car than demand a refund.”

**Errors Introduced for logic\_error.cpp:**

In the lines:

double pctKeep = 100.0 \* numKeep / numberSurveyed;

double pctRefund = 100.0 \* numRefund / numberSurveyed;

I switched the wording of these two lines to read:

double pctKeep = 100.0 / numKeep / numberSurveyed;

double pctRefund = 100.0 / numRefund / numberSurveyed;

By switching the multiplication with a division, the build was successful, but the output was incorrect. Inputting 1000 to the first question, 650 to the second, and 350 to the third, the output should have read, “65.0% say they will keep their car. 35.0% say they will demand a refund.” However, it read, “0.0% say they will keep their car. 0.0% say they demand a refund.” This output was incorrect and generated by a logic error.

**Errors Introduced for compile\_error.cpp:**

First Error:

In the line

cout << “How many of them say they will take a payment and keep their car?”;

I removed the semi-colon at the end, which generated the error response:

Expected ‘;’ after expression.

This removal of the semi-colon led the build to fail.

Second Error:

In the line

double pctKeep = 100.0 \* numKeep / numberSurveyed;

I deleted the space between double and pctKeep producing: doublepctKeep, which generated two error responses:

Use of undeclared identifier ‘doublepctKeep

and

Use of undeclared identifier ‘pctKeep’; did you mean ‘numKeep’?