

## CST 180 Programming Assignment #1 (20 points)

**Purpose:** The purpose of this assignment is to use an IDE (Integrated development environment) to create a well-documented C++ program from scratch.

**Specifics:** A Chevy Silverado with a 25 gallon gas tank averages 16.2 miles per gallon when driven in town and an amazing 20.4 miles per gallon when driven on the highway. Write a program that calculates and displays the distance the car can travel on one tank of gas when driven in town and when driven on the highway.



The following formula is used to calculate the distance:

$$\text{Distance} = \text{Number of Gallons} * \text{Average Mile per Gallon}$$

Plan on using the double datatype for storing calculated values.

Use the cout object to display program results.

**Step 1:** Develop and document your program by creating a flowchart. (Do this before you write the program!)

**Step 2:** Type your code into the IDE (e.g. Dev c++, visual studio, etc)

**Step 3:** Compile your code and execute. You may need to fix errors.

**Deliverables:** Submit the C++ source code to the **Program 1 Dropbox** within the Delta eLearning System.

Create a hardcopy for turn-in and grading containing the following:

- a) Title Page
- b) Flow chart for program (If you don't remember flow-charting, google it.)
- c) Source Code (copy and paste from your IDE)
- d) Screenshot of output

Upload the document **AND** the .cpp source code file for grading into the appropriate dropbox.