

## Programming Assignment #2

Let's Sell Some Coffee!

CS 1428.302, Spring 2018

Instructor: Jill Seaman

**Due:** before class **Thursday, 2/8/2018** (upload electronic copy by 9:00am)

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### Problem:

Your friends opened a coffee cart business and want to calculate some statistics about their daily sales. Write a C++ program that will calculate these statistics.

The coffee is sold in three sizes: large (15 oz cup), medium (12 oz cup) and small (9 oz cup). The cost of one large cup is \$2.00, one medium cup is \$1.90, and one small cup is \$1.75.

**Input:** The user should be prompted to input the number of large, medium, and small cups sold that day.

**Processing:** The coffee cart owners want to know: the total number of cups sold, the total amount of coffee sold (in ounces) and total amount of money in sales. They also want to know the percent of total cups of each size that were sold. For example, if 25 large cups were sold, 15 medium cups, and 10 small cups, then 50% were large cups, 30% were medium cups, and 20% were small cups.

**Output:** The program should print the statistics described above. All output should be clearly labeled, dollar amounts should include a dollar sign (\$) and percentages should include a percent sign (%). Dollar amounts and percentages should be formatted to exactly 2 decimal places.

Sample output:

```
Enter the number of large cups sold: 25
Enter the number of medium cups sold: 19
Enter the number of small cups sold: 13

Total Cups sold   : 57
Total Ounces sold: 720
Total Sales: $108.85

Percent of total cups sold:
Large:  43.86%
Medium: 33.33%
Small:  22.81%
```

## Additional Requirements:

- Your program **must compile** and run, otherwise you will receive a score of 0.
- Don't worry if your total sales or percentages are off by .01. This is due to a rounding error.

## Style:

See the Style Guidelines document on the class website. In particular:

- Include the **Header comments**, like last time, including a good description
- **Variables:** Use meaningful variable names and use camel case. Each variable declaration must be on a separate line with a descriptive comment.
- **Named constants:** use these for numeric literals, and use uppercase and underscores in their names.
- Source code lines should be less than 80 characters in length, and the program statements should be indented appropriately.

## Logistics:

Name your file **assign2\_XXXXX.cpp** where XXXXX is your TX State NetID (your txstate.edu email id). The file name should look something like this: assign2\_js236.cpp

There are two steps to the turn-in process:

1. Submit an **electronic copy** using the Assignments tool on the TRACS website for this class ([tracs.txstate.edu](http://tracs.txstate.edu)). Submit the .cpp file only.
2. Submit a **printout** of the .cpp file at the beginning of class on the day the assignment is due. Please print your name on the front page. Submit the .cpp file only

See the assignment turn-in policy on the course website ([cs.txstate.edu/~js236/cs1428](http://cs.txstate.edu/~js236/cs1428)) for more details, including penalties.