**Bucks County Community College**

**Department of Science, Technology, Engineering & Mathematics (STEM)**

**CISC122 Computer Science II**

LAB01, Methods Points: 25

**OBJECTIVE**

* To demonstrate writing a void method
* To demonstrate writing a value returning method
* To demonstrate invoking (calling) methods
* To demonstrate using Math.round
* To demonstrate input from the keyboard and output to the monitor

**REQUIRED**

A report of your work, in a flat pocket folder, in the following order:

1. Grade form **Lab01GradeForm.doc**

2. This program description **Lab01Description.doc**

Listing of test data and expected results

3. Problem Analysis **Lab01ProblemAnalysis.doc**

4. The listing of the source program **Lab01.java**

5. Listing of the input and output from the monitor

With my test data and your test data

**SPECIFICATIONS**

Start with the Java program template Lab01Template.java, in the CISC122 Lab01 folder

Save it as Lab01.java

Add comments for: your name, date, purpose of the program

Write a program that calculates stock value and dividend yield:

**Input** the following five variables – use an input prompt and align the input:

stock name; stock ticker; stock price; shares owned; annual dividend

Create a method that calculates stock value (**price** multiplied by **# of shares**)

Round to two decimal places

Call this method to get the stock value

Create a method that calculates the dividend yield (**annual dividend** divided by **stock price**)

Dividend yield is stated as a percentage: round to two decimal places

Call this method to get the dividend yield

Create a method that prints formatted output: a message, a value and %, if needed

Call this method to display the stock value on the monitor

Call this method to display the dividend yield on the monitor

At the beginning of the program, input your name from the keyboard.

At the end of the program, display a completed message and your name on the monitor.

**TEST DATA and EXPECTED RESULTS**

Run the program with data for:

Stock name = Exelon

Stock ticker = EXC

Stock price = 34.90

Shares owned = 40.15

Annual dividend = 1.27

Expected results: (calculate what you expect the results to be)

Stock value =

Dividend yield =

You have $1000. Find a stock and purchase shares:

Go to <http://finance.yahoo.com/> and browse for stocks (type something in the “get quotes” box)

Find a stock that has a dividend

Figure out how many shares you can purchase for $1000

Run the program with your stock data: (fill this in)

Stock name =

Stock ticker =

Stock price =

Shares owned =

Annual dividend =

Expected results: (calculate what you expect the results to be)

Stock value =

Dividend yield =

**SAMPLE RUN OF PROGRAM**

Welcome to the Stock Program.

Please enter the following information:

Your name > B Korb

Stock name > Exelon

Stock ticker > EXC

Stock price > 30.03

Shares owned > 33.03

Annual dividend > 2.10

Stock value = 991.89

Dividend yield = 6.99%

Program completed. Thank you, B Korb