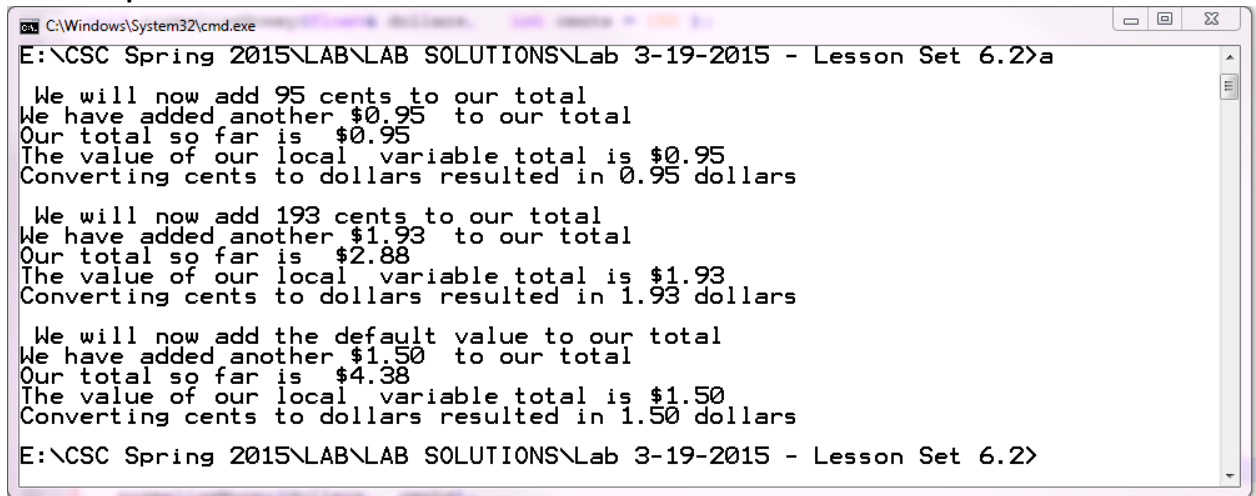


LAB DIRECTIONS for LAB 3/19/2015

Based on Lesson Set 6.2

1. Create a folder named **Lesson Set 6.2**. Put all files you create for this lab in this folder.
2. Download the **Lesson Set 6.2 source files** from ilearn and extract them into your Lesson Set 6.2 folder on your computer or jump drive.
3. Bring in program **money.cpp** from the Lesson Set 6.1 source files folder.
 - a. You will notice that the function has to be completed. This function will take cents and convert it to dollars. It also keeps a running total of all the money it has processed. Complete the function. Fill in the blank space to define sum and then write the code to convert cents to dollars. Example: 789 cents would convert to 7.89.
 - b. Compile and run the program. The user does not enter any input in this program.
 - c. Take a screen capture of the program running and paste in a word document titled **Lesson Set 6.2 Screen Captures**.



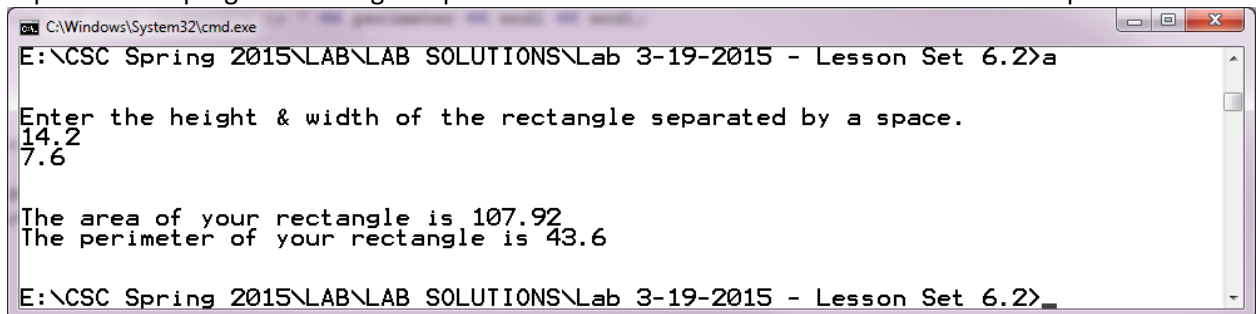
```
C:\Windows\System32\cmd.exe
E:\CSC Spring 2015\LAB\LAB SOLUTIONS\Lab 3-19-2015 - Lesson Set 6.2>a
We will now add 95 cents to our total
We have added another $0.95 to our total
Our total so far is $0.95
The value of our local variable total is $0.95
Converting cents to dollars resulted in 0.95 dollars

We will now add 193 cents to our total
We have added another $1.93 to our total
Our total so far is $2.88
The value of our local variable total is $1.93
Converting cents to dollars resulted in 1.93 dollars

We will now add the default value to our total
We have added another $1.50 to our total
Our total so far is $4.38
The value of our local variable total is $1.50
Converting cents to dollars resulted in 1.50 dollars

E:\CSC Spring 2015\LAB\LAB SOLUTIONS\Lab 3-19-2015 - Lesson Set 6.2>
```

4. Bring in **calcRect.cpp** from the Lesson Set 6.1 source files folder.
 - a. Complete the program so that the user enters in the height & width of the rectangle and the resulting area & perimeter are printed out. Make sure the calculations of area & perimeter are in a function named `calculateRectangle` and that you print out the results back in the main function. The `calculateRectangle` function should be a void function.
 - b. Compile and run the program using the data in the example screen capture below. Take a screen capture of the program running and past in the document titled Lesson Set 6.2 Screen Captures.



```
C:\Windows\System32\cmd.exe
E:\CSC Spring 2015\LAB\LAB SOLUTIONS\Lab 3-19-2015 - Lesson Set 6.2>a
Enter the height & width of the rectangle separated by a space.
14.2
7.6

The area of your rectangle is 107.92
The perimeter of your rectangle is 43.6

E:\CSC Spring 2015\LAB\LAB SOLUTIONS\Lab 3-19-2015 - Lesson Set 6.2>_
```

5. The next program you will write from scratch – there is no code to bring in from the source files folder. Name your program **milesToKilo.cpp**.
- Write a program that will convert miles to kilometers and kilometers to miles. The user will indicate both a number (representing a distance) and a choice of whether that number is in miles to be converted to kilometers or kilometers to be converted to miles. Each conversion is done with a value returning function. You may use the following conversions.

$1 \text{ kilometer} = .621 \text{ miles}$
 $1 \text{ mile} = 1.61 \text{ kilometers}$
 - Compile and run the program using the data in the example screen capture on the next page.
 - Take a screen capture of the program running and paste in the document titled **Lesson Set 6.2 Screen Captures**.

```

C:\Windows\System32\cmd.exe
E:\CSC Spring 2015\LAB\Lab Manual Solutions\Lab Manual Solutions\Lab 6.2>a
Please input
1 Convert miles to kilometers
2 Convert kilometers to miles
3 Quit
1
Please input the miles to be converted
110
110 miles = 177.1 kilometers.
Please input
1 Convert miles to kilometers
2 Convert kilometers to miles
3 Quit
2
Please input the kilometers to be converted
177.1
177.1 kilometers = 109.979 miles.
Please input
1 Convert miles to kilometers
2 Convert kilometers to miles
3 Quit
3
E:\CSC Spring 2015\LAB\Lab Manual Solutions\Lab Manual Solutions\Lab 6.2>_
  
```

What to Turn In: (by Wednesday, March 25, 2015)

- money.cpp
- calcRect.cpp
- milesToKilo.cpp
- Lesson Set 6.2 Screen Captures

How you will be graded

money.cpp	5 points	Program compiles with no errors
	5 points	Program code is neat & includes complete comment block
	10 points	Follows specifications / correct calculations
calcRect.cpp	5 points	Neat output
	5 points	Program compiles with no errors
	5 points	Program code is neat & includes complete comment block
milesToKilo.cpp	10 points	Follows specifications / correct calculations
	5 points	Neat output
	5 points	Program compiles with no errors
Lesson Set 6.2 Screen Captures	5 points	Program code is neat & includes complete comment block
	20 points	Follows specifications / correct calculations
	5 points	Neat output
Lesson Set 6.2 Screen Captures		15 points
		Screen capture for all three programs was included (5 points each)