CS170/01 Introduction to Python Programming – Spring 2020

Week 3 Assignment

Due on Wednesday, Feb. 12 at 11:59 p.m.

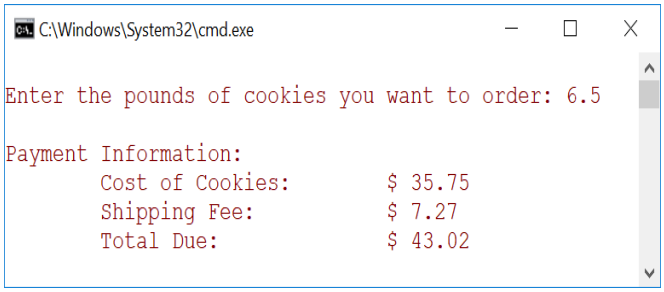
Note: You are encouraged to discuss homework problems with other students, the tutors, and the instructor, but you must write your final answer by yourself. Solutions prepared "in committee" or by copying someone else's work are not acceptable.

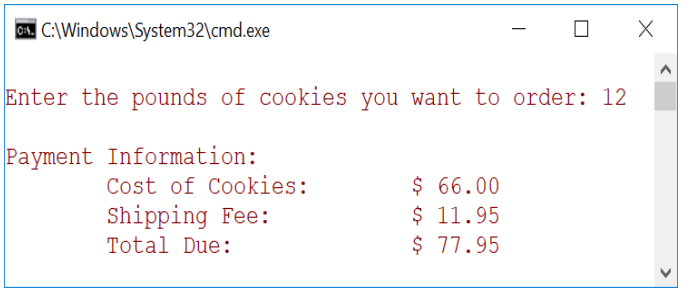
1. Cookie Order

The Snookies Cookies shop sells cookies at $5.50 a pound plus the cost of shipping. Each order ships for $0.85 per pound + $1.75 fixed cost for overhead. Write a program that calculates the cost of an order.

In the program, represent the numbers 5.50, 0.85, and 1.75 as named **constants**. Format the output results with **two decimal places** and **a dollar sign** front of the amount.

Sample outputs:





Step by step guide:

Step 1: Declare the **named constants** to store the numbers 5.5, 0.85, and 1.75. Naming them COOKIES_COST = 5.5, UNITPRICE = 0.85, FIXEDRATE = 1.75, respectively.

Declare the variables to store the number pounds of cookies ordered from the user, and declare another three variables to store the cookie cost, shipping fee, and total due.

Step 2: Get the number pounds of cookies you want to order from the user.

Step 3:

a). Calculate the cost of cookies.
b). Calculate the shipping fee.
c). Calculate the total due.

Step 4: Print the cost of cookies, shipping fee, and the total due on the screen.

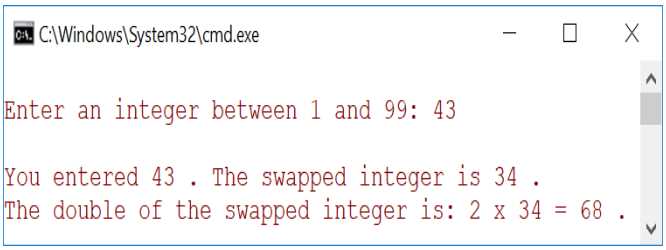
2. Swapping Digits

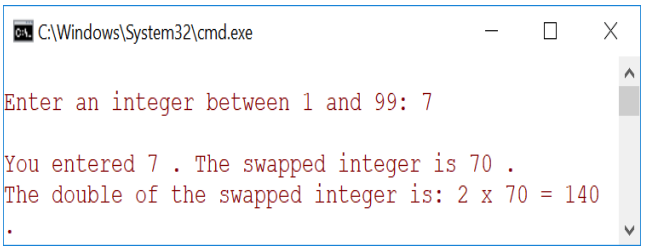
Write a program that reads in an integer between 1 and 99, inclusive of 1 and 99. The program swaps and prints the ones digit with the tens digit. It then also prints the double of the swapped integer. For example, if an integer entered is **93**, the output should be: **2 × 39 = 78**. For another example, if an integer entered is **5**, the output should be: **2 × 50 = 100**.

(**Hint**: use the integer division // and modules % operators in the program).

Note that, for now, you will not worry about the situation where the input integer is out of range. You will assume that the user enters an integer is between 1 and 99.

Sample outputs shown below:





Test the two programs. Upload the two complete Python files to the **Assignments → Weekly Homework → Week #3** folder on **Canvas**.