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cs-110

Spring 16

Project 1-Problem 1

Program Marathon

Program Description: Compute the average speed of the runner during the race. The times and distance travelled are entered from the keyboard.

Use of the Program: The user must know the times in hours, minutes and seconds and distance travelled in meters. After this, the program will request the numbers of the times and distance with the prompt:

Time in hours: (enter a number here)

Time in minutes: (enter a number here)

Time in seconds: (enter a number here)

Distance in meters: (enter a number here)

- After the user enter them into the keyboard, the program is going to compute/print the distance in kilometers, the average speed on both meters per second and kilometers per hour.

Bugs: I didn't find any bugs.

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Project 1-Problem 2

Program Taxes

Program Description: Compute the total price and tax base on four different types of products. The type of product, numbers of items purchased and the price of an item are entered from the keyboard.

Use of the Program: The user must know the type of product (A, B, C or D), numbers of items purchased and the price of item. After this, the program will request them with the prompt:

Type of Product: (enter only letter A, B, C, or D here)

Number of item(s): (enter a number here)

Price of item: (enter a number here)

- After the user enter them into the keyboard, the program is going to compute/print the price before tax apply which is the number of items purchased times the price of item, the tax price of the product base on type of product and the total price after the tax apply.

Bugs: I didn't find any bugs.

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Project 1-Problem 3

Program Description: Compute the number of molecules of a substance. The molecular weight(m) and a quantity in grams or ounces are entered from the keyboard.

Use of the Program: The user must know the molecular weight(m) and a quantity in grams or ounces. After this, the program will request the numbers of the molecular weight(m) in grams/mol or ounces/mol and a quantity in grams or ounces with the prompt:

Name of substances: (enter a number and letter here (element, ex: H2O))

Molecular Weight in grams/mol or ounces/mol: (enter a number here)

Quantity/Mass in grams/ounces: (enter a number here)

- After the user enter them into the keyboard, the program is going to compute/print the number of moles before printing the number of molecules.

Bugs: I didn't find any bugs. But I did not know how to convert the number in front of exponential into 2 or 3 decimal places even though I tried to find out already. Ex: 6.223242e29 to 6.22e29