

## CS21 Assignment #5

Please use the given name for your scripts!

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**BE SURE TO READ THE REMINDERS AT THE END OF THIS ASSIGNMENT!** Just because your program functions, doesn't mean you'll receive full credit!

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### REMEMBER:

*Any work you submit for this assignment should be authored entirely by yourself. Assistance is permitted from the instructor or teaching assistants only. All submitted programming assignments are subject to originality verification through software designed and used for the Measure Of Software Similarity (MOSS).*

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1. (distance.py) Complete *Chapter 4* Programming Challenge #4. Your program should have a user-defined function called `show_travel` that accepts the time and speed and prints the chart of distance traveled by hour.

Enter the speed of the vehicle in mph: 55

Enter the number of hours traveled: 4

Hour Distance Traveled

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1	55.0
2	110.0
3	165.0
4	220.0

*Do not let the user proceed if they give a negative value for the speed or number of hours.*

### Sample Run

Enter the speed of the vehicle in mph: -10

speed must be greater than zero

Enter the speed of the vehicle in mph: -5

speed must be greater than zero

Enter the speed of the vehicle in mph: 20

Enter the number of hours traveled: -5

time must be greater than zero

Enter the number of hours traveled: 0

time must be greater than zero

Enter the number of hours traveled: 3

Hour Distance Traveled

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1	20.0
2	40.0
3	60.0

Do not use a tab or spaces for spacing your data in your chart (use the format function).

2. (taxes.py) Complete Chapter 5 Programming Challenge #5. Your program should have a user-defined function called `show_property_tax`. Your main function is responsible for all input and calculations. Your function will simply print the results. Be sure to validate input (value must be  $\geq 0$ ). See sample run:

*Sample run #1*

```
Enter the actual value: 55000
Assessed value: $33,000.00
Property tax: $237.60
```

*Sample run #2*

```
Enter the actual value: -10000
Actual value must be  $\geq 0$ 
Enter the actual value: 25672
Assessed value: $15,403.20
Property tax: $110.90
```

**Reminders (not following will result in point deductions):**

All programs should have a `main()` function as well as one additional user-defined function (unless otherwise indicated).

Use constants! No magic numbers!

It is expected that you will complete the same process of development that use in class. When you reach the point of having an algorithm (pseudocode), this will become the comments of your program as a starting point for writing code. Comment first, then code!

Be sure to include comments at the top of the program that include your name, class and a short description of the program.

Each function should begin with a comment describing the task the function will perform.

Be sure all output is formatted. Unless otherwise, specified, displays non-integer values with 2 digits after the decimal point.