

Exam 1

SUBMIT original code in Python to solve the problem below.

Please be aware that copying and pasting code from any other source other than code you have explicitly written on your own is considered plagiarism. If you receive help, that is fine (document help in the comments of your code) however you need to write your own code, name your own variables, and comment your own code. Students turning in the exact same work as another student will all be given zeros. Plagiarism is not tolerated, and students found to be plagiarizing will be given a zero and reported to the University with the possibility of termination of the class and degree program.

Tax laws are incredibly complicated. To help cope, you will write a program to do some of the heavy lifting.

Your program should accept as input:

- the amount of total income for the year (in dollars)
- the marital status of the user (single/married)
 - If the user is married, how long have they been married
- the current elevation of the user's home address (below/at/above sea level)
 - If the user lives above sea level, how many bedrooms are in their house

Your program should produce as output the amount of income tax owed for that year.

The process for calculating the amount of tax owed is as follows:

Yearly Income

- If the yearly income is less than \$10,000, income tax is 2.3% of income
- If yearly income is greater than or equal to \$10,000 but less than or equal to \$50,000, income tax is 4.5% of income
- If yearly income is greater than \$50,000, income tax is 6.1% of income

Marital Status:

- If the user is single, no changes are made
- If the user is married, $(\$1.62 * \text{years_married})$ is subtracted from the income tax

Current Elevation:

- If the user lives below sea level, they are either a fish or a cave person and a processing fee of \$18.32 is added to the income tax.
- If the user lives at sea level, they must be a ship captain and are subject to import fees. 1.6% of income is added to the income tax

- If the user lives above sea level, a \$5.00 charge per bedroom is added to the income tax

You do not need to round or truncate your output. Save your program as **Exam1.py** and upload your source file to the appropriate dropbox in GradeScope, **NOT D2L!**

Sample Input Example:

What was your total income for this tax year?: **10000**

Are you married? [y/n]: **y**

How long have you been married?: **5**

Is the elevation of your home address below-1, at- 2, above- 3 sea level?[1/2/3]: **2**

Sample Output Example:

The total tax for 10000.0 is: 601.9

REMEMBER

- Include the comment heading at the top of your code.

```
# Program Name: Exam1.py (use the name the program is saved as)
# Course: IT1114/Section XXX
# Student Name: John Doe
# Assignment Number: Lab#
# Due Date: xx/xx/ 20XX
# Purpose: What does the program do (in a few sentences)?
# List specific resources used to complete the assignment.
```

- Place comments within your code explaining the programming segments