PROG1700 Logic & Programming

Tech Check #2

Name: Barney Nobles ID: W0400123
Value: 6% of overall course mark Duration: 45 mins

Variables, Operators, Input & Output

Deductions Calculator

You will create a console-based Python program that will calculate the amount of **pension** and **Federal tax withheld** from an employee's weekly salary in some fictional country.

The total **pension** amount and **Federal tax withheld** amount is calculated by combining the amounts minus a per-dependent deduction from the total. **The user will enter** their gross weekly salary amount and the number of dependents they wish to claim. The program will calculate and output the amount of pension, amount of Federal tax withheld, the dependent deduction(s), and the user's final take-home (net) amount.

pension amount is calculated at 15%. Federal tax withheld amount is calculated at 27%. The deduction for dependents is calculated at 5% of the employee's salary per dependent.

Suggested Steps

1. Study the **sample** output screenshot, to understand what your completed program should look like.
2. Create two variables representing the two values the user will enter and assign each of them a testing value (i.e. Hard-code each a value for now).
3. Create variables for each of the rates. (pension rate, Federal tax withheld rate, dependent rate)
4. Create variables to hold any of the totals you may need to store while doing your math calculations.
5. Use your variables to build the math expressions required to perform your calculations. Remember – you can only use numeric values in a mathematical formula!
6. Display all five expected totals in the console, without descriptive messages.
7. Change your initial variables to use user input values instead of being hard-coded.
8. Alter your five outputs to include descriptive messages.
9. Alter your five outputs to include proper currency formatting.

Submission of Work

Late submissions will receive the standard late submission penalty as stated in the course outline. (10% overall deduction per day late, until 60%, or up to 4 days)

You will submit your .py file and flowchart(s) for this assignment via GitHub. While you will have frequent commits/pushes of your assignment code to GitHub as you work on it, the instructor needs to know which version to mark and when it was committed. So, when you have completed all assignment work, put a "Ready for Marking" comment on the last code committed into GitHub. Then submit a simple text document to the Brightspace Dropbox that contains the git Commit ID string (e.g., "b180b37") that identifies that commit. It is this Dropbox submission that will be used to determine late penalties, so make sure to do so prior to the assignment deadline.

Evaluation

Sample Output

```
Tax Withholding Calculator

Please enter the full amount of your weekly salary: 1000
How many dependents do you have?  2

Provincial Tax Withheld: $60.00
Federal Tax Withheld: $250.00
Dependent Deduction for 2 dependents: $40.00
Total Withheld: $270.00
Total Take-Home Pay: $730.00
```

Marking

All deduction rates are defined and stored in appropriately named variables. **(1 point)**	Yes No
All required input is collected and stored in appropriately named variables. **(1 point)**	Yes No
pension amount is correctly calculated and stored in an appropriately named variable. **(1 point)**	Yes No
Federal tax withheld amount is correctly calculated and stored in an appropriately named variable. **(1 point)**	Yes No
Dependent deductions are correctly calculated and stored in an appropriately named variable. **(1 point)**	Yes No
Total withholding amount is calculated and stored in an appropriately named variable. **(1 point)**	Yes No
Take-home pay is correctly calculated and stored in an appropriately named variable. **(2 points)**	Yes No
pension, Federal tax withheld, dependents tax deduction(s) and take-home pay are all correctly labeled and displayed with correct formatting to the console. **(2 points)**	Yes No