CPSC 236 (Elementary Programming)

You can work in pairs; however, each student need to submit a copy, use the answer sheet to submit your solutions.

# Project 2-1: Student Registration

Create a program that allows a student to complete a registration form and displays a completion message that includes the user’s full name and a temporary password.

### Console

**Registration Form**

**First name:**

**Last name: Birth year:**

**Eric**

**Idle**

**1934**

**Welcome Eric Idle!**

**Your registration is complete.**

**Your temporary password is: Eric\*1934**

**Specifications**

* The user’s full name consists of the user’s first name, a space, and the user’s last name.
* The temporary password consists of the user’s first name, an asterisk (\*), and the user’s birth year.
* Assume the user will enter valid data.

# Project 2-2: Pay Check Calculator

Create a program that calculates a user’s weekly gross and take-home pay.

### Console

**Pay Check Calculator**

**Hours Worked: 35**

**Hourly Pay Rate: 14.50**

|  |  |
| --- | --- |
| **Gross Pay:** | **507.5** |
| **Tax Rate:** | **18%** |
| **Tax Amount:** | **91.35** |
| **Take Home Pay:** | **416.15** |

**Specifications**

* The formula for calculating gross pay is:

**gross pay = hours worked \* hourly rate**

* The formula for calculating tax amount is:

**tax amount = gross pay \* (tax rate / 100)**

* The formula for calculating take home pay is:

**take home pay = gross pay – tax amount**

* The tax rate should be 18%, but the program should store the tax rate in a variable so that you can easily change the tax rate later, just by changing the value that’s stored in the variable.
* The program should accept decimal entries like 35.5 and 14.25.
* Assume the user will enter valid data.
* The program should round the results to a maximum of two decimal places.

# Project 2-3: Travel Time Calculator

Create a program that calculates the estimated hours and minutes for a trip.

### Console

**Travel Time Calculator**

**Enter miles: 200**

**Enter miles per hour: 65**

**Estimated travel time Hours: 3**

**Minutes: 5**

**Specifications**

* The program should only accept integer entries like 200 and 65.
* Assume that the user will enter valid data.

### Hint

* Use integers with the integer division and modulus operators to get hours and minutes.