Objectives: To explore input and output in C++, and IF statements.

Task#1:

Marks: 2 out of 5.

Summary: write a C++ program to take an employee's information as input from the user and then print out the employee's name, deductions, and net pay.

Details: The program should read hours worked in a week and hourly rate, **followed by an employee's name as a string all on one line** and to print out one week's deductions and net weekly pay for the employee, according to the following rules:

- Weekly wage is hours multiplied by hourly rate.
- Tax is 20% of the weekly wages.
- PRSI is 2.5% of weekly wages.
- Union dues are € 3.50 per week.

Notes/Hints/Additional Details:

- The employee's name may consist of several parts; therefore, you will need to use getline(cin, name) to take strings as input. For that, you will need to **include** the <string> library). Moreover, you may sometimes need to use: **cin.ignore(INT_MAX, '\n');** before the getline function in order to clear out any "left-overs" in the keyboard buffer.
- For example, for the input **35 10.50 Mary Lou McGroarty** the output should be (but not necessarily nicely formatted for the first task):

      Name   Mary Lou McGroarty
      Hours   35
      Hourly rate   10.50
      Gross wage   367.50
      Tax @ 20%   73.50
      PRSI @ 2.5%   9.19
      Union dues   3.50

      Net pay   281.31

- Be sure to test your program on a variety of inputs.

Task#2 (IF statement):

Marks: 2 out of 5

Summary: Add more features to your program to incorporate: overtime pay and tax credit.

Details: Alter the program to implement the following:

- **Overtime** hours (beyond 35 per week) are paid 1.5 times the basic hourly rate.
- Add a **tax credit** to the input (before the name). The gross tax is reduced by the tax credit, but only as far as 0. For example, extending the above example, for the input

      35 10.50 50 Mary Lou McGroarty

  Applying the tax credit of 50 to the tax of 73.50 brings the net tax to 23.50. But if the tax credit were 80, the final net tax would be 0, not -6.50.

Task#3 (Formatting):

Mark: 1 out of 5.

Details: For this exercise the last mark is awarded for the formatting of the output as shown above. You will need to consult the lecture notes and textbook to work out how to output 2 decimal places and to work out how to align the numbers on the right side.