Exercise 1 (Date: Jan 06, 2024)

Exercise 1: Explain each of the following using an example of a human capability:
(1) Central processing unit, (2) Main Memory, (3) Secondary Memory, (4) Input Device, and (5) Output Device. For example, "What is the human equivalent to a Central Processing Unit"?

Exercise 2: Write a program to prompt the user for hours and rate per hour to compute gross pay.

Enter Hours: 35
Enter Rate: 2.75
Pay: 96.25
We won't worry about making sure our pay has exactly two digits after the decimal place for now. If you want, you can play with the built-in Python round function to properly round the resulting pay to two decimal places.

Exercise 3: Rewrite your pay computation to give the employee 1.5 times the hourly rate for hours worked above 40 hours.

Enter Hours: 45
Enter Rate: 10
Pay: 475.0

Exercise 4: Rewrite your pay program using try and except so that your program handles non-numeric input gracefully by printing a message and exiting the program. The following shows two executions of the program:

Enter Hours: 20
Enter Rate: nine
Error, please enter numeric input
Enter Hours: forty
Error, please enter numeric input

Exercise 5: Rewrite your pay computation with time-and-a-half for overtime and create a function called **computepay** which takes two parameters (hours and rate).
Enter Hours: 45
Enter Rate: 10
Pay: 475.0

Exercise 6: Write a program which repeatedly reads integers until the user enters "done". Once "done" is entered, print out the total, count, and average of the integers. If the user enters anything other than an integer, detect their mistake using try and except and print an error message and skip to the next integers.

Enter a number: 4
Enter a number: 5
Enter a number: bad data
Invalid input
Enter a number: 7
Enter a number: done
16 3 5.333333333333333