Week 2 (To Submit)

Exercise 1

Write a Python program to accept a Radian value and convert into Degree value.

Test data:
Radian: .52
Expected output: 29.781818181818185

Note: pi = 22/7
*Formula: degree = radian * (180/pi)*

Exercise 2

Write a Python program that accepts an integer (n) and computes the value of n + nn + nnn + nnnn.

Sample value of n is 5.
Expected Result: 6170

Exercise 3

Write a Python program that asks the user to enter 2 numbers for mathematical calculation.

Output as below:

```
Mathematical Calculation
1st Number: 25
2nd Number: 6


 25  +  6  =  31

 25  -  6  =  19

 25  *  6  =  150

 25  /  6  =  4.166666666666667
>>>
```

Exercise 4
Write a Python program to perform the following tasks:

- Display today's date and current time
- Display New date after 5 years and 5 days later; display new time after 4 hours later from the current time
- Display New date after 10 years and 1 month later; display new time 4 hours and 15 minutes earlier from the current time.
- Import a library to perform the task: import datetime
- Hints: Today's date: datetime.date.today(), Current time: datetime.datetime.now().time()

Output as below:

```
~Today's date~
Year: 2017
Month: 8
Day: 24
~Current time~
Hour: 13 am/pm
Minute: 17
Second: 33


~New date after 5 years and 5 days later~
Year: 2022
Month: 8
Day: 29
~New time: 4 hours later~
Hour: 17 am/pm
Minute: 17
Second: 33


New date after 10 years and 1 month later
Year: 2027
Month: 9
Day: 24
~New time: 4 hour and 15 minutes earlier~
Hour: 9 am/pm
Minute: 2
Second: 33
>>>
```

Exercise 5
Write a Python program to accept 2 inputs: Applicant's name and Interviewer name and to display a new interview date (1 month later from the current date) for an interview.

Output as below:

```
Enter the applicant's name:Daniel
Enter the interviewer's name:Lucy
Lucy will interview Daniel at 9.00am on 2017 - 9 - 24
>>>
```

input

Exercise 6
Write a Python program to accept 2 “string” numbers for calculation. Note: convert string number to an Integer number before perform the calculation.

Exercise 7
Rainbow Stationary shop is required to have a simple program for their cashier to key in customer’s purchase. Write a Python program to accept the inputs (purchase), calculate the cost for each item, calculate the total of the purchase, format the answer in currency.

Output as below:

```
Rainbow stationary
Pen:2
Pencil:3
A4 paper:4
Ruler:5
~**********~
2 Pen(s): RM1.78
3 Pencil(s): RM1.65
4 Paper(s): RM27.16
5 Ruler(s): RM2.25
Total($) purchase: RM32.84
~**********~
Amount Paid:
```

input

output

And now accept an input for Amount Paid and find out the balance after that.

Output as below:

```
Rainbow stationary
Pen:2
Pencil:3
A4 paper:4
Ruler:5
~**********~
2 Pen(s): RM1.78
3 Pencil(s): RM1.65
4 Paper(s): RM27.16
5 Ruler(s): RM2.25
Total($) purchase: RM32.84
~**********~
Amount Paid:35
Your balance: RM2.16
>>>
```

Hints:

- Use the follow to start the program:
  import locale
  locale.setlocale(locale.LC_ALL, '')
- Use “*locale.currency*” to format the output.