**Liang Python Revel Assigned Quiz and Programming Project Solution**

**Chapter 1**

**Chapter 1: Programming Project 1:**

*(Display three different messages)*

Write a program that displays

Welcome to Python

Welcome to Computer Science

Programming is fun.

If you get a logical or runtime error, please refer https://liangpy.pearsoncmg.com/faq.html.

# Exercise01\_01

print("Welcome to Python")

print("Welcome to Computer Science")

print("Programming is fun")

**Chapter 1: Programming Project 2:**

*(Compute expressions)*

Write a program that displays the result of (9.5 \* 4.5 - 2.5 \* 3) / (45.5 - 3.5).

If you get a logical or runtime error, please refer https://liangpy.pearsoncmg.com/faq.html.

# Exercise01\_05

print((9.5 \* 4.5 - 2.5 \* 3) / (45.5 - 3.5))

**Chapter 1: Programming Project 3:**

*(Population projection)*

The US Census Bureau projects population based on the following assumptions:

One birth every 7 seconds

One death every 13 seconds

One new immigrant every 45 seconds

Write a program to display the population for each of the next five years. Assume the current population is 312032486 and one year has 365 days.

If you get a logical or runtime error, please refer https://liangpy.pearsoncmg.com/faq.html.

# Exercise01\_11

print(312032486 + 365 \* 24 \* 60 \* 60 / 7 - 365 \* 24 \* 60 \* 60 / 13 + 365 \* 24 \* 60 \* 60 / 45)

print(312032486 + 2 \* 365 \* 24 \* 60 \* 60 / 7 - 2 \* 365 \* 24 \* 60 \* 60 / 13 + 2 \* 365 \* 24 \* 60 \* 60 / 45)

print(312032486 + 3 \* 365 \* 24 \* 60 \* 60 / 7 - 3 \* 365 \* 24 \* 60 \* 60 / 13 + 3 \* 365 \* 24 \* 60 \* 60 / 45)

print(312032486 + 4 \* 365 \* 24 \* 60 \* 60 / 7 - 4 \* 365 \* 24 \* 60 \* 60 / 13 + 4 \* 365 \* 24 \* 60 \* 60 / 45)

print(312032486 + 5 \* 365 \* 24 \* 60 \* 60 / 7 - 5 \* 365 \* 24 \* 60 \* 60 / 13 + 5 \* 365 \* 24 \* 60 \* 60 / 45)

**Chapter 1: Programming Project 4:**

*(Simple computation)*

The formula for computing the discriminant of a quadratic equation a*x^2 + bx + c = 0*is *b^2 – 4ac*.

Write a program that computes the discriminant for the equation *3x^2 + 4x + 5 = 0*.

If you get a logical or runtime error, please refer https://liangpy.pearsoncmg.com/faq.html.

# Exercise01\_01Extra

print(4 \* 4 - 4 \* 3 \* 5)

**Chapter 1: Programming Project 5:**

*(Physics: acceleration)*

Average acceleration is defined as the change of velocity divided by the time taken to make the change, as shown in the following formula:

*a = (v1 - v0) / t*

Here, *v0* is the starting velocity in meters/second, *v1* is the ending velocity in meters/second, and *t* is the time span in seconds.

Assume *v0* is 5.6, *v1* is 10.5, and *t* is 0.5, and write the code to display the average acceleration.

If you get a logical or runtime error, please refer https://liangpy.pearsoncmg.com/faq.html.

# Exercise01\_02Extra

print((10.5 - 5.6) / 0.5)

**Solution Files:**

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