Practice Questions

Question 1: Write a Python Program

Create a Python program that prints "Welcome to Python Programming" and run the program using the terminal.

Solution:

```
# Create a file named welcome.py and paste the following code:
print("Welcome to Python Programming")

# Run the program by typing `python welcome.py` in the terminal.
```

Question 2: Using Built-in Modules

Write a program that generates a random floating-point number between 0 and 1 using the `random` module.

Solution:

```
import random

# Generate a random floating-point number between 0 and 1
random_number = random.random()
print(random_number)
```

Question 3: Installing and Using External Modules

Install the `requests` module using pip and write a Python program to fetch the content of a webpage.

Solution:

```
# Install the requests module
pip install requests
```

```python
# Create a file named fetch_webpage.py and paste the following code:
import requests

# Fetch the content of a webpage
response = requests.get('https://www.example.com')
print(response.text)
```

Question 4: Using Python as a Calculator

Use Python's REPL to perform the following calculations and print the results:

1. Multiply 15 by 4.
2. Subtract 20 from 100.
3. Divide 45 by 5 and print the result as a float.

Solution:

```python
# Open Python's REPL by typing `python` in the terminal and perform

>>> 15 * 4
60

>>> 100 - 20
80

>>> 45 / 5
9.0
```

Question 5: Writing Comments

Write a Python program that calculates the square of a number and uses both single-line and multi-line comments to explain the code.

Solution:

```python
# Create a file named square.py and paste the following code:

# This program calculates the square of a number

number = 5  # Assigning the value 5 to the variable 'number'

# Calculating the square of the number
square = number ** 2

"""
The ** operator is used for exponentiation.
In this case, it raises the number to the power of 2.
"""

# Printing the result
print(f"The square of {number} is {square}")
```