Practice 4

Activity 1:

```
garrett@PiStudent7 ~/A/P4> python3 conditionals.py
Enter a number: 3
3 is positive.
garrett@PiStudent7 ~/A/P4> python3 conditionals.py
Enter a number: -2
-2 is negative.
garrett@PiStudent7 ~/A/P4> python3 conditionals.py
Enter a number: 0
The number is zero.
garrett@PiStudent7 ~/A/P4>
```

```
 1 # Get user input
 2
 3 number = int(input("Enter a number: "))
 4
 5 # Check if the number is positive, negative, or zero
 6
 7 if number > 0:
 8     print(f"{number} is positive.")
 9 elif number < 0:
10     print(f"{number} is negative.")
11 else:
12     print("The number is zero.")
```

Activity 2:

```
garrett@PiStudent7 ~/A/P4> python3 loops_demo.py
For Loop:
1
2
3
4
5
6
7
8
9
10
While Loop:
1
2
3
4
5
garrett@PiStudent7 ~/A/P4>
```

```python
# Print numbers from 1 to 10 using a for loop

print("For Loop:")

for i in range(1,11):
    print(i)

# Print numbers from 1 to 5 using a while loop

print("While Loop:")

count = 1

while count <= 5:
    print(count)
    count += 1
```

Activity 3:

```
garrett@PiStudent7 ~/A/P4> python math_operations.py
Enter the first number: 50
Enter the second number: 2
Addition: 52.0
Subtraction: 48.0
Multiplication: 100.0
Division: 25.0
garrett@PiStudent7 ~/A/P4>
```

```
 1 # Get two numbers from the user
 2
 3 num1 = float(input("Enter the first number: "))
 4 num2 = float(input("Enter the second number: "))
 5
 6 # Perform basic operations
 7
 8 print(f"Addition: {num1 + num2}")
 9 print(f"Subtraction: {num1 - num2}")
10 print(f"Multiplication: {num1 * num2}")
11 print(f"Division: {num1 / num2}")
12
~
```

Activity 4:

```
garrett@PiStudent7 ~/A/P4> python3 simple_calculator.py
Enter the first number: 4
Enter the second number: 5
CHoose an operation (+, -, *, /): +
Result: 4.0 + 5.0 = 9.0
garrett@PiStudent7 ~/A/P4> python3 simple_calculator.py
Enter the first number: 5
Enter the second number: 8
CHoose an operation (+, -, *, /): *
Result: 5.0 * 8.0 = 40.0
garrett@PiStudent7 ~/A/P4> python3 simple_calculator.py
Enter the first number: 2
Enter the second number: 6
CHoose an operation (+, -, *, /): /
Result: 2.0 / 6.0 = 0.3333333333333333
garrett@PiStudent7 ~/A/P4> python3 simple_calculator.py
Enter the first number: 5
Enter the second number: 9
CHoose an operation (+, -, *, /): -
Result: 5.0 - 9.0 = -4.0
garrett@PiStudent7 ~/A/P4>
```

```
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

operation = input("CHoose an operation (+, -, *, /): ")

if operation == "+":
    result = num1 + num2
elif operation == "-":
    result = num1 - num2
elif operation == "*":
    result = num1 * num2
elif operation == "/":
    result = num1 / num2
else:
    result = "Invalid operation"

print(f"Result: {num1} {operation} {num2} = {result}")
```

Activity 5:

```
garrett@PiStudent7 ~/A/P4> python3 simple_function.py
Hello, Alice! Welcome to the Python function activity.
Hello, Bob! Welcome to the Python function activity.
garrett@PiStudent7 ~/A/P4>
```

```python
def greet_user(name):
    print(f"Hello, {name}! Welcome to the Python function activity.")

greet_user("Alice")
greet_user("Bob")

```