Python Worksheet – 1

1) Write a program to calculate the **area and perimeter of a rectangle**. Take input from the user for length and width. Use arithmetic operators.

```python
# Get input from user
length = float(input("Enter the length of the rectangle: "))
width = float(input("Enter the width of the rectangle: "))

# Calculate area and perimeter
area = length * width
perimeter = 2 * (length + width)

# Display the results
print("Area of rectangle:", area)
print("Perimeter of rectangle:", perimeter)
```

2) A student has marks in 3 subjects: 89, 76, and 91. Store these in a tuple. Write a program to calculate the average marks.

```python
# Store marks in a tuple
marks = (89, 76, 91)

# Calculate average
average = sum(marks) / len(marks)

# Display the average
print("Average marks:", average)
```

3) A login system:

- Store a username and password in variables
- Ask the user to enter their username and password
- Use logical operators to check if both are correct and print "Login Successful" or "Access Denied"

```python
 # Stored credentials

stored_username = "admin"

stored_password = "1234"


# User input

username = input("Enter username: ")

password = input("Enter password: ")


# Check credentials using logical operators

if username == stored_username and password == stored_password:

    print("Login Successful")

else:

    print("Access Denied")
```

4) Create a program that checks if a number is **even or odd** using a variable and prints an appropriate message.

```python
# Input number
number = int(input("Enter a number: "))

# Check if even or odd
if number % 2 == 0:
    print("The number is even.")
else:
    print("The number is odd.")
```

5) You sold 15 cups at RM5 each. Use += to add RM2 in tips and print your total earnings.

```
 # Initial earnings from selling 15 cups at RM50 each
earnings = 15 * 5

# Add RM2 tips
earnings += 2

# Display total earnings
print("Total earnings including tips: $", earnings)
```