**ASSIGNMENT 1**

**QUESTION 1:**

**Write a program to count how many words are in a given sentence.**

def count\_words(sentence):

# Strip leading/trailing whitespace and split by spaces

words = sentence.strip().split()

return len(words)

# Sample Test Cases

test\_cases = [

("Hello world", 2),

("This is, indeed, a test.", 5),

("", 0),

("One two three", 3)

]

# Run test cases and print output

for i, (input\_sentence, expected\_output) in enumerate(test\_cases, 1):

result = count\_words(input\_sentence)

print(f"Test Case {i}:")

print(f"Input Sentence: \"{input\_sentence}\"")

print(f"Expected Output: Word Count = {expected\_output}")

print(f"Actual Output: Word Count = {result}")

print(f"Test Result: {'PASS' if result == expected\_output else 'FAIL'}\n")

