CSC500 – Week 1 Assignment

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Assignment: Creating Python Programs (Addition/Subtraction & Multiplication/Division)

Part 1: Addition and Subtraction

Pseudocode

```
START
ASK for first number -> numl
ASK for second number -> num2
SET total = num1 + num2
SET diff = num1 - num2
PRINT total and diff
END
```

Python Source Code

```
# Week 1 - Part 1: Addition and Subtraction
def main():
    print("Addition and Subtraction")
    num1 = float(input("Enter first number: "))
    num2 = float(input("Enter second number: "))
    total = num1 + num2
    diff = num1 - num2
    print(f"Sum: {total}")
    print(f"Difference: {diff}")

if __name__ == "__main__":
    main()
```

Sample Run (text)

```
Addition and Subtraction
Enter first number: 5
Enter second number: 2
Sum: 7.0
Difference: 3.0
```

Part 2: Multiplication and Division

Pseudocode

```
START

ASK for first number -> num1

ASK for second number -> num2

SET product = num1 * num2

IF num2 == 0 THEN

PRINT 'Quotient: undefined (division by zero)'

ELSE

SET quotient = num1 / num2

PRINT product and quotient

END IF

END
```

Python Source Code

```
# Week 1 - Part 2: Multiplication and Division
def main():
    print("Multiplication and Division")
    num1 = float(input("Enter first number: "))
    num2 = float(input("Enter second number: "))
    product = num1 * num2
    print(f"Product: {product}")
    if num2 == 0:
        print("Quotient: undefined (division by zero)")
    else:
        quotient = num1 / num2
        print(f"Quotient: {quotient}")

if __name__ == "__main__":
    main()
```

Sample Run (text)

Multiplication and Division Enter first number: 9 Enter second number: 3 Product: 27.0 Quotient: 3.0