**Part 1**

**Pseudocode**

get the number of years

iterate over the range of years

for each year, get 12 months of rainfall data

keep running total of rainfall

keep a running total of months

display total rainfall

display average rainfall

**Python**

def main():

    total\_rainfall = 0.0

    total\_months = 0

    years = int(input("Enter the number of years: "))

    for year in range(1, years + 1):

        print(f"\nYear {year}:")

        for month in range(1, 13):

            while True:

                try:

                    rainfall = float(input(f"  Enter the inches of rainfall for month {month}: "))

                    if rainfall < 0:

                        print("    Rainfall cannot be negative. Please enter a valid amount.")

                        continue

                    break

                except ValueError:

                    print("    Invalid input. Please enter a number.")

            total\_rainfall += rainfall

            total\_months += 1

    average\_rainfall = total\_rainfall / total\_months if total\_months else 0

    print("\nRainfall Statistics")

    print(f"Total months: {total\_months}")

    print(f"Total inches of rainfall: {total\_rainfall:.2f}")

    print(f"Average rainfall per month: {average\_rainfall:.2f}")

if \_\_name\_\_ == "\_\_main\_\_":

    main()

**Screenshot**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**Github**

<https://github.com/mnem0nic7/CSC500/tree/main/Critical%20Thinking%20Mod%205>

**Part 2**

**Pseudocode**

get the number of books purchased

if books < 0 error and reprompt

if books < 2 return 0

if books < 4 return 5

if books < 5 return 15

if books < 8 return 30

else return 60

print points

**Python**

def calculate\_points(books\_purchased):

    if books\_purchased < 2:

        return 0

    elif books\_purchased < 4:

        return 5

    elif books\_purchased < 6:

        return 15

    elif books\_purchased < 8:

        return 30

    else:

        return 60

def main():

    try:

        books = int(input("Enter the number of books purchased this month: "))

        if books < 0:

            print("Number of books cannot be negative.")

            return

        points = calculate\_points(books)

        print(f"Points awarded: {points}")

    except ValueError:

        print("Please enter a valid integer.")

if \_\_name\_\_ == "\_\_main\_\_":

    main()

**Screenshot**

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**Github**

<https://github.com/mnem0nic7/CSC500/tree/main/Critical%20Thinking%20Mod%205>