Module 5 Critical Thinking

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Principles of Programming

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**PART 1**

**PSEUDOCODE**

1. Ask for the number of years.
2. Set total rainfall to 0.
3. Calculate total months as years \* 12.
4. For each year (Show current year)
5. For each month (1 to 12):

* Ask for the rainfall in inches for that month.
* Add that rainfall to total rainfall.

1. Calculate average rainfall by dividing total rainfall by total months.
2. Display results:

* Total months
* Total rainfall in inches
* Average rainfall per month

**SOURCE CODE**

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

total\_rainfall = 0

total\_months = years \* 12

for year in range(1, years + 1):

print(f"\nYear {year}")

for month in range(1, 13):

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

total\_rainfall += rainfall

average\_rainfall = total\_rainfall / total\_months

print("\nRESULTS")

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

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

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

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**PART 2**

**PSEUDOCODE**

1. Ask how many books were bought this month.

2. Save the answer as “books purchased”.

3. Check how many books were bought and decide the points

4. Show how many points were earned.

**SOURCE CODE**

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

if books\_purchased == 0:

points = 0

elif books\_purchased == 2:

points = 5

elif books\_purchased == 4:

points = 15

elif books\_purchased == 6:

points = 30

elif books\_purchased >= 8:

points = 60

else:

points = 0

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

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**GIT REPOSITORY**