■ Python Sales Report Worksheet

Step 1. Raw Data

We have a text file sales.txt with one number per line:
120
340
560
450
230
780
640
300

Step 2. Load the Data

■ Read the file into Python as a list of integers.
with open("sales.txt", "r") as file:
sales = [____(line.strip()) for line in file]

print(sales)
Question: What Python function converts a string like '120' into a number?

Step 3. Basic Math with Lists

print("Total Sales:", ____(sales))
print("Average Sale:", sum(sales) / ____(sales))
print("Highest Sale:", ____(sales))
print("Lowest Sale:", ____(sales))
Questions: 1) What is the average of these numbers? 2) Which function gives you the largest value in the list?

Step 4. Using the statistics Module

import statistics

print("Mean:", statistics.____(sales))
print("Median:", statistics.____(sales))
print("Standard Deviation:", statistics.____(sales))
Questions: Which is higher, the mean or the median? What does the standard deviation tell us about sales?

Step 5. Organize with Pandas

import pandas as pd

df = pd.DataFrame(sales, columns=["Sales"])
print(df.____())
Questions: Which function gives a summary table of count, mean, min, max, and quartiles? How many sales entries are in our dataset?

Step 6. Create a Chart

import matplotlib.pyplot as plt

plt.plot(sales, marker="o")
plt.title("Sales Report")
plt.xlabel("Transaction")
plt.ylabel("Sales Amount")
plt.show()
Challenge: Change the chart to a bar chart instead of a line chart. Add grid lines.

Step 7. Extend Your Exploration

Try these: Sort the sales list. Filter sales above 500. Add a new sale and re-run the chart.