Name _____

Copilot Data Analyst Sample Answer Key

Step 1: The Data - First impressions: Season 2 looks stronger - there are more high numbers (like 4s and 5s) and fewer low scores like 0s or 1s. It seems like the team scored more goals on average this year.

Step 2: Crunching the Numbers by Hand

Season 1 (Last Year): 2, 3, 1, 2, 0, 3, 2, 1, 1, 2

- **Mean:** (2 + 3 + 1 + 2 + 0 + 3 + 2 + 1 + 1 + 2) ÷ 10 = 17 ÷ 10 = **1.7**
- **Median:** Order → 0, 1, 1, 1, 2, 2, 2, 2, 3, 3 → Median = average of 5th and 6th numbers = (2 + 2)/2 = **2**
- **Mode:** Most common number = **2**

Season 2 (This Year): 3, 4, 2, 5, 3, 4, 4, 3, 2, 5

- **Mean:** (3 + 4 + 2 + 5 + 3 + 4 + 4 + 3 + 2 + 5) ÷ 10 = 35 ÷ 10 = **3.5**
- **Median:** Order → 2, 2, 3, 3, 3, 4, 4, 4, 5, 5 → Median = average of 5th and 6th numbers = (3 + 4)/2 = **3.5**
- **Mode:** Most common number = **3 and 4** (bimodal)

Comparison: Season 2's mean and median are higher, showing definite improvement in scoring.

Step 3: Copilot's Check

Prompt Used:

"Here are two sets of soccer data: Season 1 (2, 3, 1, 2, 0, 3, 2, 1, 1, 2) and Season 2 (3, 4, 2, 5, 3, 4, 4, 3, 2, 5). Can you calculate the mean, median, and mode for each season and describe the trend?"

Copilot's Response Summary:

"Season 1: Mean = 1.7, Median = 2, Mode = 2.
Season 2: Mean = 3.5, Median = 3.5, Mode = 3 and 4.
The data shows a clear upward trend - the team's scoring performance has improved significantly."

Copilot's math matched the student's calculations exactly.