To determine the best route for Jean based on the data provided, we need to consider both the central tendency (mean) and the variability (standard deviation) of the travel times for each route. Let's analyze the data step-by-step:

### Step 1: Calculate the Mean Travel Time for Each Route

\*\*Country Route:\*\*

- Data: 17, 15, 17, 16, 18

- Mean = (17 + 15 + 17 + 16 + 18) / 5 = 83 / 5 = 16.6 minutes

\*\*City Route:\*\*

- Data: 18, 13, 20, 10, 16

- Mean = (18 + 13 + 20 + 10 + 16) / 5 = 77 / 5 = 15.4 minutes

### Step 2: Calculate the Standard Deviation for Each Route

\*\*Country Route:\*\*

- Variance = [(17 - 16.6)² + (15 - 16.6)² + (17 - 16.6)² + (16 - 16.6)² + (18 - 16.6)²] / 5

- Variance = [(0.16) + (2.56) + (0.16) + (0.36) + (1.96)] / 5 = 5.2 / 5 = 1.04

- Standard Deviation = √1.04 ≈ 1.02

\*\*City Route:\*\*

- Variance = [(18 - 15.4)² + (13 - 15.4)² + (20 - 15.4)² + (10 - 15.4)² + (16 - 15.4)²] / 5

- Variance = [(6.76) + (5.76) + (21.16) + (29.16) + (0.36)] / 5 = 63.2 / 5 = 12.64

- Standard Deviation = √12.64 ≈ 3.55

### Step 3: Interpretation

- \*\*Mean Travel Time:\*\* The City Route has a lower mean travel time (15.4 minutes) compared to the Country Route (16.6 minutes).

- \*\*Variability:\*\* The Country Route has much less variability (SD ≈ 1.02) than the City Route (SD ≈ 3.55), indicating more consistent travel times.

### Step 4: Decision Based on Jean's Criteria

Jean wants to arrive on time but not too early. Here are the considerations:

- \*\*Consistency:\*\* The Country Route provides more consistent travel times, which reduces the risk of being late or too early.

- \*\*Risk of Extremes:\*\* The City Route has a wider range of travel times, including a very fast time of 10 minutes but also a very slow time of 20 minutes. This variability could lead to either arriving too early or being late.

Given that Jean does not want to arrive too early to avoid increased parking fees, and consistency is important for punctuality, the consistency of the Country Route seems more beneficial despite the slightly higher average time.

### Conclusion

Based on the analysis, the best choice for Jean would be:

\*\*(A) The Country Route, because the times are consistently between 15 and 18 minutes.\*\*

This choice ensures that Jean can plan her travel with more predictability, reducing the risk of being late or arriving too early.