INDIVIDUAL PERFORMANCE TASK • Transportation Statistics

Name	Period	Date
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Ms. Garcia's students want to write letters to their city council in order to persuade the council to add a bus line that reaches their school. They decide to use data they collected as evidence to help support their claim.

1. Nia collected the following data by surveying her classmates to see how far they travel (in miles) to get to school. Here are the responses she received:

{ 4.2, 1.9, 0.8, 4.6, 11, 2, 2.8, 3, 4.2, 0.6, 3.7 }

a. Create a five-number summary for Nia's data.Minimum: 1st Quartile: Median: 3rd Quartile: Maximum:

b. Create a box plot for Nia's data.

c. What is the mean of Nia's data? Why is it different from the median?

2. Henry collects data by surveying his classmates to see how far they travel (in miles) to get to school. Here are Henry's responses:

{9.1, 0.8, 0.6, 5.9, 1, 12, 2.3, 7.7, 3, 0.3, 8.3}

Henry says his school is just like Nia's because he found the median and concluded that everyone he surveyed travels about 3 miles to get to school.

Do you agree with his conclusion? Why or why not?

3. The city council writes Ms. Garcia's class back and says they need to see more data. In order to add a bus, they require that the average distance students travel to get to school be 4 miles or more.

If a new student joins the class, what is the closest she or he could live to school that would raise the mean above 4 miles? Show your work.