## Lesson 12: Using Mean and MAD to Make Comparisons <br> Cool Down: Travel Times Across the World

Ten sixth-grade students in five different countries were asked about their travel times to school. Their responses were organized into five data sets. The mean and MAD of each data set is shown in the table.

|  | mean (minutes) | MAD (minutes) |
| :---: | :---: | :---: |
| United States | 9 | 4.2 |
| Australia | 18.1 | 7.9 |
| South Africa | 23.5 | 16.2 |
| Canada | 11 | 8 |
| New Zealand | 12.3 | 5.5 |
|  |  |  |

1. Which group of students has the greatest variability in their travel times? Explain your reasoning.
2. a. The mean of the data set for New Zealand is close to that of Canada. What does this tell us about the travel times of students in those two data sets?
b. The MAD of the data set for New Zealand is quite different than that of Canada. What does this tell us about the travel times of students in those two data sets?
3. The data sets for Australia and Canada have very different means (18.1 and 11 minutes) but very similar MADs. What can you say about the travel times of the students in those two data sets?
