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1. The average temperatures, in degrees Fahrenheit, of two U.S. cities over a sixmonth period are shown in the table.

Temperatures
(in degrees Fahrenheit)

| City 1 | City 2 |
| :---: | :---: |
| $46^{\circ}$ | $15^{\circ}$ |
| $51^{\circ}$ | $18^{\circ}$ |
| $56^{\circ}$ | $26^{\circ}$ |
| $64^{\circ}$ | $36^{\circ}$ |
| $74^{\circ}$ | $47^{\circ}$ |
| $85^{\circ}$ | $54^{\circ}$ |

What is the difference in the mean absolute deviation for the average temperatures of the two cities?
A $\frac{2}{9}$
B $\quad 1 \frac{1}{3}$
C $\quad 11 \frac{2}{3}$
D $\quad 13$
2. The heights, in inches, of the starting members of two basketball teams are shown in the table below.

Player's Height

| Team 1 <br> (in inches) | Team 2 <br> (in inches) |
| :---: | :---: |
| 81 | 83 |
| 78 | 74 |
| 72 | 78 |
| 79 | 79 |
| 79 | 81 |

Which statement is true regarding the mean absolute deviation (MAD) for the heights of Team 1 and Team 2?

A The MAD for Team 1 is slightly greater than the MAD for Team 2.
B The MAD for Team 1 is slightly less than the MAD for Team 2.
C The MAD for Team 1 is the same as the MAD for Team 2.
D The MAD cannot be determined for the data given.
3. Two seventh-grade mathematics teachers were comparing 8 students' test scores in each of their classes. The tables below show the students' scores.

Test Scores

| Class I | Class II |
| :---: | :---: |
| 92 | 86 |
| 94 | 84 |
| 88 | 83 |
| 95 | 85 |
| 94 | 83 |
| 90 | 88 |
| 88 | 91 |
| 95 | 96 |

What is the difference in the mean absolute deviation for the students' test scores in Class I and Class II?
A 5
B
3.5
C 2.5
D 1
4. The heights of the members of the United States and Chinese 2008 Olympic women's gymnastics teams are shown in the table below.

2008 Olympic Women's Gymnastics

| Chinese Team <br> Height <br> (inches) | United States Team <br> Height <br> (inches) |
| :---: | :---: |
| 54 | 57 |
| 55 | 59 |
| 56 | 60 |
| 57 | 61 |
| 59 | 63 |
| 60 | 63 |

Which statement is true regarding the mean absolute deviation (MAD) of the heights for the members of the United States women's gymnastics team and the Chinese women's gymnastics team?

A The MAD cannot be determined for the data given.
B The MAD for the Chinese team is less than the MAD for the U.S. team.
C The MAD for the U.S. team is less than the MAD for the Chinese team.
D The MAD for the U.S. team is the same as the MAD for the Chinese team.
5. The dot plots below represent the amount of precipitation over seven months in San Marcos, Texas, and Ithaca, New York.

## San Marcos, Texas



Which statement about the mean absolute deviation (MAD) is true?
A The MAD for the San Marcos data is about 2.5 times the MAD for the Ithaca data.
B The MAD for the Ithaca data is about 2.5 times the MAD for the San Marcos data.
C The MAD for the San Marcos data is the same as the MAD for the Ithaca data.
D The MAD cannot be determined from the data given.

