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## Summarizing Data From a Frequency Table

The frequency table below shows the number of points Mariah scored at her basketball games last season.

| Number of Points | Number of Games |
| :---: | :---: |
| 11 | 1 |
| 21 | 2 |
| 22 | 2 |
| 23 | 4 |
| 24 | 3 |
| 25 | 2 |



Use the information in the frequency table to answer each question. Sample Answers

1. Does this data set have any outliers? If so, tell which data values are outliers, and explain how you know.
The data set has one outlier: 11. You can tell that it is an outlier because it is much smaller than the other data values and the other values are grouped more closely together.
2. Which measure of center, mean or median, will better describe this data? Explain why. The median will better describe this data because the outlier will drag the value of the mean down.
3. Find the measure of center you chose above. Then describe what this measure of center means in terms of Mariah's data.
The median is 23 . This means that the middle of Mariah's data is 23 points. In other words, half of Mariah's data values fall above 23 points and half of her data values fall below 23 points.
4. Which measure of variability, mean absolute deviation or interquartile range, will better describe this data? Explain why.
The interquartile range will better describe this data because the outlier will push the value of the mean absolute deviation up.
5. Find the measure of variability you chose above. Then describe what this measure of variability means in terms of Mariah's data.
The interquartile range is 2 . This means that the middle $50 \%$ of Mariah's data is between 22 points and 24 points.
