# 40 Median, Mode, and Range

4.B.2.a

## Example

What is the median of the following set of data?

66, 70, 74, 58, 62, 70, 68, 54

Ⓐ 66
Ⓑ 67
Ⓒ 68
Ⓓ 70

## Thinking It Through

**Solve** —*List It* To find the median, order the numbers from least to greatest:

54, 58, 62, 66, 68, 70, 70, 74

There are 8 pieces of data. The median will be the *average* (or *mean*) of the two middle numbers, which are 66 and 68.

To find the average, add: $66 + 68 = 134$. Then divide $134 \div 2 = 67$. The median is *67, choice B.*

## Example

Kimberly has taken 5 math tests. Her scores were 85, 72, 93, 78, and 94. What was the range of Kimberley's scores?

Ⓐ 9
Ⓑ 15
Ⓒ 21
Ⓓ 22

## Thinking It Through

**Ask** *What is the greatest number?* 94 *What is the least number?* 72

To find the range, subtract the least number from the greatest number.

$94 - 72 = 22$, *choice D.*

## Review

- To find the **range**, subtract the least number from the greatest number in a **data** set.
- The **mode** is the number that occurs the most often in a data set. There may be more than one mode, if more than one number occurs most often. *Important!* If each number occurs just once, then there is no mode.
- The **median** is the middle number of a data set when the numbers are arranged in greatest-to-least order. If there is an even number of data, find the two middle numbers, add them, then divide by 2.

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**Directions: Write the answer to each Part on the lines provided.**

**1** Grissom Elementary School has played 7 games this season. The number of points the basketball team has scored in each of its games is listed below.

38, 44, 26, 42, 50, 31, 44

## Part A

What are the median, mode, and range of the data?

## Part B

Use what you know about median, mode, and range to explain how you determined your answer. Use words, numbers, and/or symbols in your explanation.

When there is an odd number of data, the median is one of the values in the data set.