

Name: \_\_\_\_\_ Date: \_\_\_\_\_

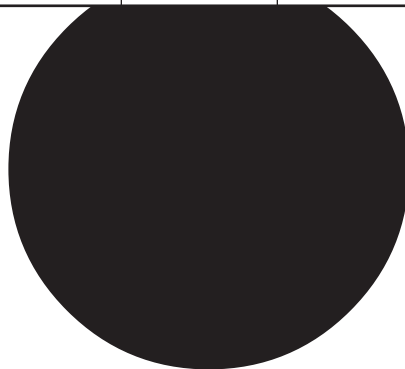
# It's About Average

## Mean



Yolanda and six of her friends went bowling last weekend. They each bowled five games and recorded their scores on a chart. When Yolanda got home and looked at the chart, she realized they had forgotten to record their scores for the fifth game! But after she remembered that they each had an average score of 105, she knew she could figure out the missing scores. Decide how she found the missing scores. Then complete the chart.

	Game 1	Game 2	Game 3	Game 4	Game 5
Yolanda	125	112	101	91	
Terrence	108	96	102	117	
Tonya	140	90	93	96	
Lana	83	90	150	85	
Brice	100	105	110	102	
Tabitha	75	100	105	80	
Lupe	98	95	122	107	



### Thinking Cap



Do you think the mean of 105 is representative of how well each person bowled? Explain your answer.

# It's About Average

## Mean

**Topic:** Mean

**Objective:** To use the calculator to find a missing number in a set of data given the mean of the data.

**NCTM Standards:** Problem Solving, Reasoning, Statistics

### Using the Activity

Students use the calculator in this activity to find the missing number in a set of data when they know the mean of the data.

- The **M+** and **MR** keys can be used to enter and recall data in the memory of the calculator.
- The **(** and **)** keys can be used to group expressions.

**Example** For all seven bowlers, the mean is 105 and they each bowled five games. Therefore, the sum of the scores for all five games for each bowler was  $105 \times 5 = 525$ . Press the **M+** key to enter this product into the memory of the calculator. Note that this product will be used to find the missing score for every bowler. To find Yolanda's score for Game 5, press **MR** to recall 525 from the memory of the calculator. Then enter **- ( 125 + 112 + 101 + 91 ) =** to find that Yolanda's score for Game 5 was 96.

**Assessment** Have students calculate the average for all five scores for each bowler. If the score they found for Game 5 is correct, the mean will be 105.

### Answers

*Yolanda: See example above for answer.*

*Terrence: **MR - ( 108 + 96 + 102 + 117 ) = 102***

*Tonya: **MR - ( 140 + 90 + 93 + 96 ) = 106***

*Lana: **MR - ( 83 + 90 + 150 + 85 ) = 117***

*Brice: **MR - ( 100 + 105 + 110 + 102 ) = 108***

*Tabitha: **MR - ( 75 + 100 + 105 + 80 ) = 165***

*Lupe: **MR - ( 98 + 95 + 122 + 107 ) = 103***

### Thinking Cap Answers

The mean score is representative of how some of the people bowled. For example, it is very representative of Brice's scores since his scores did not vary significantly. On the other hand, Lana was an inconsistent bowler and the mean score does not show the wide range of her scores.