LESSON MAKER PRO

Data Detectives

Find the number facts hidden in each data set.

GRADE 5 · MA.5.DP.1

MA.5.DP.1 "Collect, represent and interpret data and find the mean, mode, median or range of a data set."

NAME _____ DATE _____

CHOOSE THE RIGHT MEASURE

The mean is the total of all values divided by the number of values. The median is the middle value after you put values in order, the mode is the value that appears most, and the range is the greatest value minus the least value.

WORKED EXAMPLE

Find the mean of 12, 15, 15, and 18.

1. Add the values: 12 + 15 + 15 + 18 = 60.
2. Count the values: 4.
3. Divide: 60 / 4 = 15.

Answer: 15

PRACTICE 6 problems

1 Find the mean of 4, 6, 8, and 10.

ANSWER _____

2 Find the median of 3, 5, 7, 9, and 11.

ANSWER _____

3 Find the mode of 2, 4, 4, 6, and 8.

ANSWER _____

4 Find the range of 14, 9, 18, and 11.

ANSWER _____

5 Find the mean of 1, 3, 3, 5, and 8.

ANSWER _____

6 Find the median of 6, 10, 14, 6, and 9.

ANSWER _____

APPLY IT Show your work

1 A student read 17, 19, 21, 23, and 25 pages on five different nights. What was the mean number of pages read each night?

2 Pose a question about the lengths of five classroom pencils. Measure each pencil to the nearest centimeter and record all five actual values in a table. Make a frequency table of those values, then find the mean, mode, median and range. Write one conclusion about these five pencils.

CHALLENGE One step up

Six plant heights have a mean of 13 centimeters. Five heights are 7, 10, 11, 16, and 17 centimeters. What is the missing height? Explain how you know.

ANSWER KEY

Data Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the mean of 4, 6, 8, and 10.	**7**
2	Find the median of 3, 5, 7, 9, and 11.	**7**
3	Find the mode of 2, 4, 4, 6, and 8.	**4**
4	Find the range of 14, 9, 18, and 11.	**9**
5	Find the mean of 1, 3, 3, 5, and 8.	**4**
6	Find the median of 6, 10, 14, 6, and 9.	**9**

PART 2 · APPLY IT

1. **21 pages** Add the pages: 17 + 19 + 21 + 23 + 25 = 105. Divide 105 by 5 to get 21 pages.
2. **Answers depend on actual measurements. Example 12,14,14,16,19 cm: mean 15 cm; mode 14 cm, median 14 cm, range 7 cm. Frequency table 12:1,14:2,16:1,19:1.** Supply five pencils and a centimeter ruler. Require measured values, a frequency table totaling five, statistics computed from those values and a supported conclusion. If no value repeats, report no mode; accept multiple tied modes.

CHALLENGE

17 centimeters.

Accept correct units on word-problem answers. For the challenge, accept any clear explanation that shows a total of 78 and subtracts the known total of 61. Observe actual measurements. The sample key is an illustration, not required data; do not substitute its values for student observations.