

SKILL 18: PROBLEM SOLVING: Finding Averages

To find the average of a set of numbers, first find the sum of the numbers. Then divide by the number of addends.

Example

The table shows the approximate duration of the final 5 Apollo space missions. What was the average duration of those missions?

Read The table shows the duration of the final 5 Apollo missions.

Plan How do you find the average?

Add to find the total duration of the 5 missions.

Divide this sum by 5 to find the average.

APOLLO SPACE MISSIONS	
Apollo 13	6.0 days
Apollo 14	9.0 days
Apollo 15	12.3 days
Apollo 16	11.1 days
Apollo 17	12.6 days

Solve Add: 6.0 + 9.0 + 12.3 + 11.1 + 12.6 = 51.0.

Then divide.

The average duration of these missions was 10.2 days.

Look Back The average should be between the least and greatest addend. Since 10.2 is between 6.0 and 12.6, the answer makes sense.

Guided Practice

Shawn's math test grades for the marking period were 93, 85, 87, 67, 92, and 83. Find his average grade.

- 1. What is the sum of the grades? _____
- 2. How many grades are there? _____
- 3. How do you find the average grade?
- 4. What is the average grade? ____
- 5. a. Is the average between the least and greatest addend? _____
 - b. Does the answer make sense? ____
- 6. Suppose Shawn's teacher throws out the lowest test grade. Find Shawn's average grade based on his five highest grades.

SKILL 18: Practice

Find the average of each set of numbers.

1. 1.6, 2.3, 2.3, 3.8, 2.0 _____

2. 0.33, 0.25, 0.26, 0.32 _____

Solve each problem.

- 3. The number of students in each homeroom at Lincoln School is 37, 41, 34, 38, 33, and 36. What is the average number of students in each room?
- **4.** The normal monthly precipitation in Baltimore, given in inches, is shown below.

3.1, 3.1, 3.4, 3.1, 3.7, 3.7, 3.7, 3.7, 3.9, 3.4, 3.0, 3.3, 3.4

Find the average monthly precipitation.

- 5. Shelly's times, in seconds, for the 100-meter dash were 21.2, 19.8, 22.1, 20.0, and 20.4. What is her average time?
- 6. Larry bought CDs for \$12.98, \$15.39, and \$8.95.

 What was the total amount he paid for the CDs?
- 7. Ms. Kelstat bought milk four times last week. She paid the following for each gallon: \$3.79, \$3.53, \$2.09 (on sale), \$3.79. What was the average price per gallon?
- 8. Jamie took five tests and had an average score of 95.4. How many total points did she earn?



9. Rosita's bowling scores were 129, 144, 137, and 148. Find her average score.

Skill 18

- **A** 558
- C 139.5
- B 114
- **D** 456

- 10. At 55 miles per hour, how far will Mr. Murray travel in 2.5 hours? Skill 9
- 18 **F** 1,375 mi
- H 57.5 mi
- **G** 13.75 mi
- **J** 137.5 mi