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### Introduction

The *Minutes to Mastery* series was designed to help students build confidence in their math abilities, and then bring that confidence into testing situations. As students develop fluency with math facts and operations, they improve their abilities to do different types of math problems comfortably and quickly.

Each of the 100 tests in the book has 10 questions in key math areas. Multiple opportunities are presented to solve the standards-based problems and develop speed and fluency. The pages present problems in a variety of ways using different terminology. For example, students might be asked to divide and then later asked to find an equal share. Multiple terms are used to provide additional practice in decoding text for clues. Critical thinking and abstract reasoning play an important role in solving math problems, and practicing skills is imperative.

Keep in mind that timing can sometimes add to the stress of learning. If this is the experience for your math learner(s), focus less on timing in the beginning. As confidence builds, accuracy and speed will follow. Timing can be introduced later.

Following are steps to help you establish a timing system.

- 1. Allow students to complete a worksheet without officially timing it to get a sense of how long it will take them to complete it. Ideally, you want all ten questions per page to be answered.
- **2.** Remind students to write their answers legibly.
- **3.** Allow students to practice using the preferred amount of time before taking a timed test.
- **4.** Have students take a few timed tests and see how it works. Adjust the time as needed.
- **5.** Work to improve the number of correct answers within the given time. Remind students that it is important to be accurate—not just fast!
- Encourage students to try to do their best each time, to review their results, and to spend time working on areas where they had difficulties.

The section at the bottom of each page can be used to record specific progress on that test, including the time the student started the test, finished the test, the total time taken, how many problems were completed, and how many problems were correct.

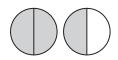
A tracking sheet is provided on page 4 of this book. Use the second column to record the number of problems students answered correctly, and the final column to record the score as a percent, the date the test was taken, initials, or anything else that helps you and your students to keep track of their progress.

With practice, all students can begin to challenge themselves to increase their speed while completing problems clearly and accurately.

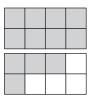
Name Date

Write an improper fraction and a mixed number for the shaded part of each diagram.

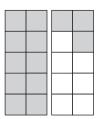
1.



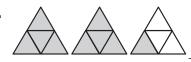
2.



3.



4.



Write the mixed number for the following.

**5.** 
$$\frac{8}{5}$$
 \_\_\_\_\_

**6.** 
$$\frac{9}{2}$$
 \_\_\_\_\_\_

**7.** 
$$\frac{7}{3}$$
 \_\_\_\_\_

Write the improper fraction for each of the following.

**8.** 6 
$$\frac{1}{3}$$
 \_\_\_\_\_

**9.** 5 
$$\frac{3}{4}$$
 \_\_\_\_\_

**10.** 
$$4\frac{4}{7}$$
\_\_\_\_\_



# Test 77 Probability and Statistics

S	6 2 5 5

Name Date

### Find the average (mean) of each group of numbers.

- **1.** 16, 42, 98, 101 \_\_\_\_\_
- **2.** \$10, \$14, \$15, \$18, \$24 \_\_\_\_\_
- **3.** 150, 170, 190, 200, 210 \_\_\_\_\_

# Below are the temperatures at noon for one week. What is the average (mean) temperature at noon for:

Day	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Temp °F	86	88	84	89	80	77	79

- 4. Monday and Tuesday? \_\_\_\_\_
- 5. Wednesday, Saturday, and Sunday? \_\_\_\_\_
- **6.** the weekdays? \_\_\_\_\_
- **7.** the weekend? \_\_\_\_\_

#### What is the average (mean) number of:

- 8. marbles in jars of 116, 126, and 130? \_\_\_\_\_
- 9. pieces of fruit in baskets of 12, 18, 22, and 24? \_\_\_\_\_
- **10.** toothpicks in boxes of 300, 325, 350, and 400? \_\_\_\_\_





## Test 98 Equations and Variables

Name Date

### Solve the following equations by simplifying to remove the parentheses.

1. 
$$5(x + 2) = 25$$

**2.** 
$$5(x+3) = 6(x-4)$$

**4.** 
$$4(x-2) = 72$$
 \_\_\_\_\_

**5.** 
$$2(4x + 11) = -3 + 3x$$

**6.** 
$$3(2 + x) = -10 + 2x$$

### Solve the following equations for the indicated variable.

**7.** 
$$c + d + y = b$$
 Solve for y.

**8.** 
$$x - c = r$$
 Solve for  $x$ .

**9.** 
$$a + b = n$$
 Solve for  $a$ .

**10.** 
$$dx = b$$
 Solve for  $x$ .

Started: Finished: Total Time: Completed: Correct:	Started: Finished: Total Time: Completed: Correct:	)- )-
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