

# MATH



## GRADE-PLACEMENT TESTS

### STUDENT'S TEST BOOKLET

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Student's Name



**CURRICULUM ASSOCIATES<sup>®</sup>, Inc.**

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15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

# Graphic Profile

## Math Grade-Placement Tests

Student's Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

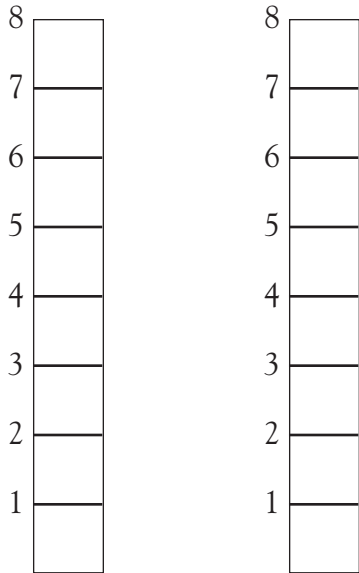
Teacher: \_\_\_\_\_ Grade: \_\_\_\_\_

School: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Comments: \_\_\_\_\_

### GRADE LEVEL



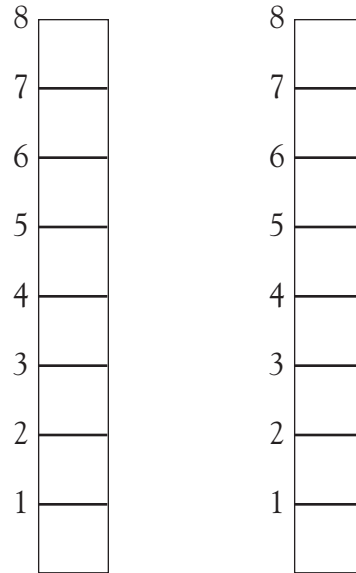
Form A

Form B

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

Computational Skills  
Grade-Placement Test

### GRADE LEVEL



Form A

Form B

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

Problem-Solving  
Grade-Placement Test

## FORM A

**DIRECTIONS:** Do as many problems as you can. Be sure to work carefully and do what the signs tell you.

$$17. \begin{array}{r} 247 \\ \times 304 \\ \hline \end{array}$$

$$18. 21 \overline{)8,675}$$

$$19. \begin{array}{r} \frac{4}{5} \\ - \frac{2}{3} \\ \hline \end{array}$$

$$20. 49.071 - 5.03 = \underline{\hspace{2cm}}$$

---

$$21. \begin{array}{r} \frac{11}{16} \\ + \frac{5}{24} \\ \hline \end{array}$$

$$22. \begin{array}{r} 97,006 \\ - 9,523 \\ \hline \end{array}$$

$$23. \frac{3}{7} \times 2\frac{5}{8} = \underline{\hspace{2cm}}$$

$$24. 8.2 \overline{)38.13}$$

---

$$25. 3\frac{5}{6} \times 2\frac{1}{4} = \underline{\hspace{2cm}}$$

$$26. 4\frac{1}{6} \div \frac{5}{7} = \underline{\hspace{2cm}}$$

$$27. -23 + 14 = \underline{\hspace{2cm}}$$

$$28. 60\% \text{ of } 15 = \underline{\hspace{2cm}}$$

---

$$29. 6.04 \div .02 = \underline{\hspace{2cm}}$$

$$30. 2\frac{3}{5} \times 8\frac{1}{8} = \underline{\hspace{2cm}}$$

$$31. 12.5\% \text{ of } 9.6 = \underline{\hspace{2cm}}$$

$$32. \frac{5}{8} = \underline{\hspace{2cm}} \%$$

## FORM A

**DIRECTIONS:** Read each of the problems. Do as many as you can.  
Write your answers in the blanks.

9. It takes 40 minutes to get ready for school. One-half of this time is needed for eating breakfast. One-fourth of this time is needed for dressing. How many minutes are left for other things? \_\_\_\_\_ minutes

10. Tom bought 3 pairs of socks and a shirt. The total cost was \$21.00. The socks cost \$2.50 for each pair. How much did the shirt cost? \$ \_\_\_\_\_

---

11. Juan paid \$25.75 on a loan. Then he borrowed \$12.00. He now owes \$19.80. How much did he owe before making the payment and borrowing the \$12.00? \$ \_\_\_\_\_

12. Nikki spent one-half of her money for a shirt. Then she spent one-half of what she had left on a gift. She has \$7.00 left. How much money did she spend? \$ \_\_\_\_\_

---

13. Jan wants to swim 1 day each week for 8 weeks. She can buy a season pass for \$24.50 or pay \$3.75 each time she swims. How much will she save by buying the season pass? \$ \_\_\_\_\_

14. Each of 1,500 homes has at least 1 phone. One-half of the 1,500 homes have only 1 phone. Two-fifths have 2 phones. How many of the 1,500 homes have 3 or more phones? \_\_\_\_\_ homes

---

15. Carl paid \$1,500 cash as a down payment for his car. He now has to make payments of \$424.50 for 36 months. How much will his car cost him? \$ \_\_\_\_\_

16. If your dinner costs \$11.60 and the restaurant adds a tip of 15%, what will the total cost be? \$ \_\_\_\_\_

# TEACHER GUIDE

# MATH



## GRADE-PLACEMENT TESTS

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## PURPOSE OF THE MATH GRADE-PLACEMENT TESTS

The primary purpose of the *Math Grade-Placement Tests* is to determine the estimated grade level at which a student's computational and word problem-solving skills fall. Results of the grade-placement tests can be used to group students who score at the same level or in the same range for instruction of math skills or to determine initial placement in a math program using materials appropriate for their ability and age or grade. Students whose scores lie below the locally established criteria may need to be referred for consideration of placement in a remedial math program. Students whose scores are well above local standards may be considered for accelerated math instruction.

The two tests in math are

- **Computational Skills Grade-Placement Test**—Grade One through Grade Eight Levels
- **Problem-Solving Grade-Placement Test**—Grade One through Grade Eight Levels

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The problems presented in both of the grade-placement tests reflect the skills and complexity of problems found in math texts for each grade level from one through eight. The mathematics programs listed below were researched to compile and sequence the skills tested. Each of the tests has been validated in a national study conducted by Frances Page Glascoe, Ph.D., of Vanderbilt University, Nashville, Tennessee.

1. *Addison-Wesley Mathematics*. (K–9). Menlo Park, CA: Addison-Wesley Publishing Co., Inc., 1995.
2. *Exploring Mathematics* (K–8). Glenview, IL: Scott, Foresman & Co., 1991.
3. *Gage Active Mathematics*. (K–7). Toronto: Gage Educational Publishing, 1994.
4. *Heath Mathematics Connections*. (1–8). Lexington, MA: D. C. Heath & Co., 1992.
5. *Mathematics Applications and Connections*. (6–8). Lake Forest, IL: Glencoe/Macmillan/McGraw Hill, 1993.
6. *Mathematics in Action*. (K–8). New York: Macmillan/McGraw Hill School Division. 1992.
7. *Mathematics Plus*. (K–8). Orlando, FL: Harcourt Brace Jovanovich, Inc., 1992.
8. *Quest 2000: Exploring Mathematics*. (K–6). Don Mills, ON: Addison-Wesley Publishers Ltd., 1995.
9. *Silver Burdett & Ginn Mathematics: Exploring Your World*. (K–8). Morristown, NJ: Silver Burdett & Ginn, Inc., 1995.
10. *The Mathematics Experience*. (K–8). Boston: Houghton Mifflin Co., 1992.

## THE STUDENT’S TEST BOOKLET

The Student’s Test Booklet for *Math Grade-Placement Tests* has been designed to allow each student to use his or her own set of tests for recording written responses. Additionally, there is a page on which to record the results of the testing, showing a graphic profile of the highest grade level at which the student has achieved success on the two grade-placement tests.

## Two Forms—A and B

There are two forms for each of the *Math Grade-Placement Tests*—Form A and Form B. One form may be used as a pretest and the alternate form as a post test later in the school year. Or, if there is reason to question the validity of results obtained when administering one form, the alternate form can be administered to confirm the validity of the results.

No special training is required to administer the *Math Grade-Placement Tests*. The procedures are simple and straightforward. The tests may be administered by a teacher or a paraprofessional.

The only materials needed are a copy of the Student’s Test Booklet for the *Math Grade-Placement Tests* for each student, a pencil and scratch paper for each student, and this Teacher Guide with directions for administering each test. If a student uses the scratch paper, attach it to the test, and if his or her error count is high, you may wish to analyze the computation in order to detect if there are any potential error patterns demonstrated.

The computational problems have a higher frequency of the numbers 0–5 than the numbers 6–9. This enables students to demonstrate understanding of the operations being tested without being hindered by number-fact difficulties.

The *Math Grade-Placement Tests* were authored by Albert H. Brigrance and are included in a more comprehensive series of assessments published by CURRICULUM ASSOCIATES, Inc.

## METHODS OF ADMINISTERING THE MATH GRADE-PLACEMENT TESTS

Both the *Computational Skills Grade-Placement Test* and the *Problem-Solving Grade-Placement Test* can be administered individually or to a group, with written response being provided by the student(s).

## ADMINISTERING THE PROBLEM-SOLVING GRADE-PLACEMENT TEST

The **Problem-Solving Grade-Placement Test** requires students to comprehend and solve the word problems presented on either Form A or Form B. Grade-level math skills for levels one through eight are tested.

The test should take about fifteen minutes to complete. When administering the test to an individual, discontinue when you have determined the highest grade level at which the student can solve at least one of the two word problems correctly. For group administration, discontinue when it appears the majority of the students have had as much time as they can use profitably.

**DIRECTIONS:** Give students their own copy of the test booklet, a pencil, and scratch paper. Tell students that if they use scratch paper, they should be sure to write their answer in the test booklet in the blank next to the problem. Have students open their booklet to the appropriate page for the form you have chosen to administer. Point out the **Directions** to the students. Say **When I tell you to begin, read each of the problems. Do as many as you can. Write your answers in the blanks.**

When it appears the students understand and are ready to begin, say **Begin working the problems. Keep working until you are finished or I tell you to stop. There are two pages in the test.**

For students in grades one to three, you may choose to read the problems aloud while inviting the students to follow along in their own test booklets. Reread the problem once if needed. For students in grades four and above, have students raise their hand if they have trouble reading the words. Give help reading the problem if needed.

Circle the number in the Student's Test Booklet of each problem that is solved correctly. Give credit for the highest grade level at which the student solves at least one of the two problems correctly. Record on the graphic profile in the student's test booklet the highest grade level at which success was achieved.

## Grade Levels and Answers, Form A, pages 4 and 5

### Grade 1

1. 8 cars                      2. 4 birds

### Grade 2

3. 6 dimes                    4. 11 minutes

### Grade 3

5. \$4.00                      6. \$5.00

### Grade 4

7. \$34.00                    8. 23 students

### Grade 5

9. 10 minutes              10. \$13.50

### Grade 6

11. \$33.55                    12. \$21.00

### Grade 7

13. \$5.50                     14. 150 homes

### Grade 8

15. \$16,782.00              16. \$13.34

## Grade Levels and Answers, Form B, pages 8 and 9

### Grade 1

1. 8 fish                      2. 12 cars

### Grade 2

3. 4 rolls                      4. 6 dimes

### Grade 3

5. \$4.00                      6. \$3.00

### Grade 4

7. \$20.50                    8. 7 people

### Grade 5

9. 4 minutes                10. 8 inches

### Grade 6

11. \$27.45                    12. 30 minutes

### Grade 7

13. 38 students              14. 20%

### Grade 8

15.  $47\frac{1}{2}$  inches              16. \$299.20