

5

Tennessee TCAP

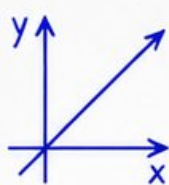
GRADE

7

MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$$



$$V = \pi r^2 h$$



5 PRINTED
TESTS



2 ONLINE
TESTS

USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



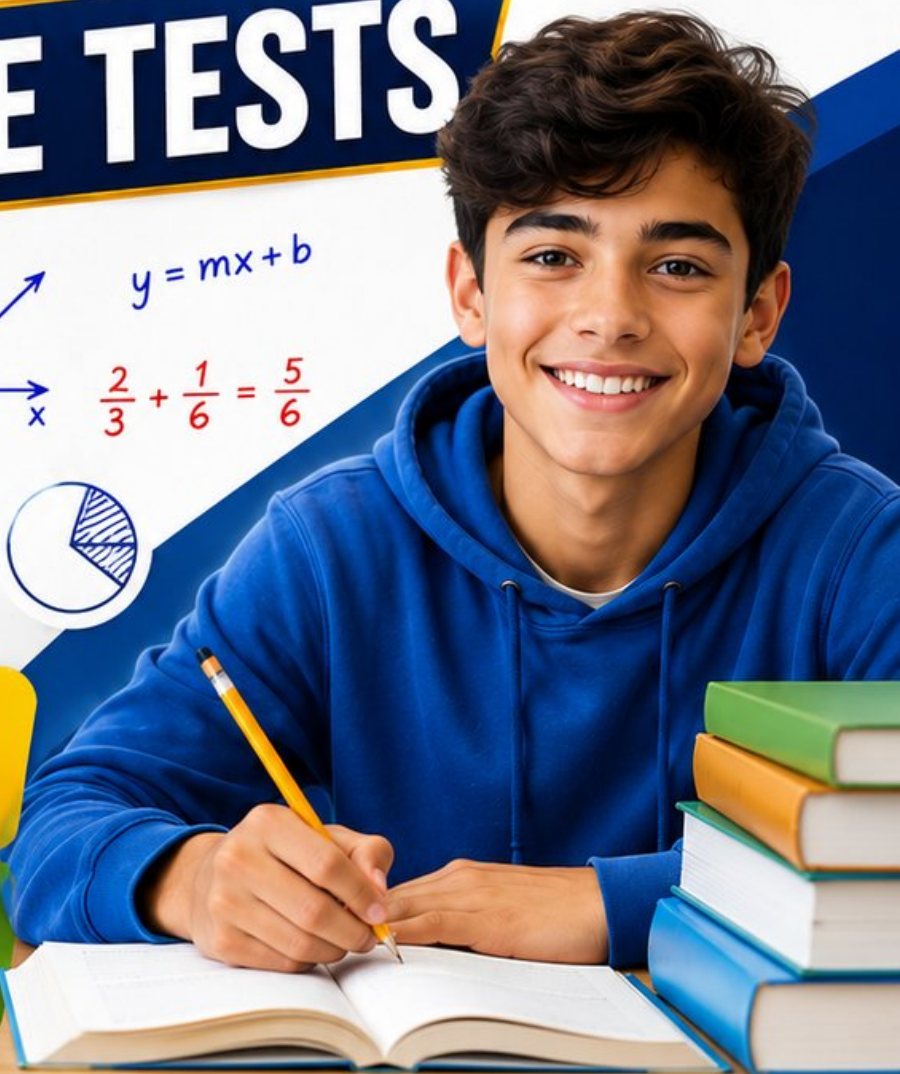
Strengthen
Math Skills



Detailed Answers
& Explanations

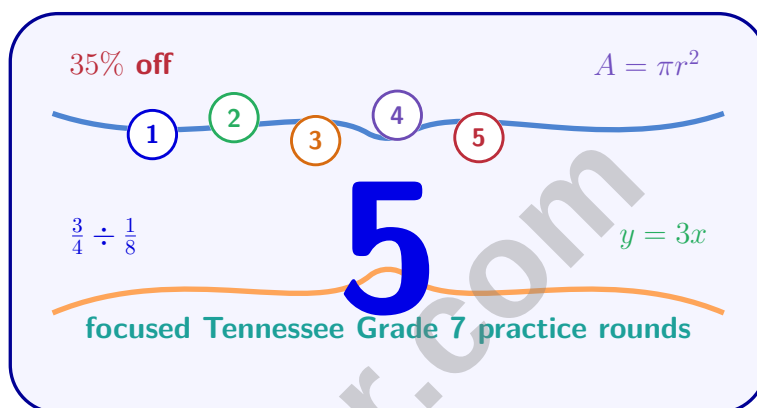


Improve Test
Performance



5 Tennessee TCAP Grade 7 Math Practice Tests

Standards-Aligned Grade 7 Prep with Keys and Explanation Support



Five complete 40-question Grade 7 TCAP practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Tennessee Grade 7 Problem Solver!

Five focused rounds for sharper TCAP math thinking

This book gives you five full Grade 7 TCAP math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Tennessee Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A five-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Tennessee review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Five TCAP tests, 200 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 3–5	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

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1) Which fraction does **NOT** convert to a terminating decimal?

☐ A. $\frac{4}{10}$

☐ B. $\frac{1}{3}$

☐ C. $\frac{6}{8}$

☐ D. $\frac{9}{25}$

2) Simplify: $-2 - (-8)$

☐ A. -10

☐ B. 10

☐ C. -6

☐ D. 6

3) A dollhouse is built to a scale of 1 : 12 (model to real). If an actual bedroom is 12 feet long, 10 feet wide, and 8 feet tall, what is the volume of the dollhouse bedroom in cubic feet?

☐ A. 960×12 cubic feet

☐ B. $\frac{960}{12}$ cubic feet

☐ C. 960 cubic feet

☐ D. $\frac{960}{1728}$ cubic feet

4)

Sport	Students	Percent
Basketball	36	45%
Soccer	20	25%
Other	24	30%

The table shows sports preferences. If 45% of 80 students play basketball, how many is that?

☐ A. 30

☐ B. 45

☐ C. 40

☐ D. 36



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5) A store sells a item for \$84 after applying a 30% markup to its cost. What was the cost?

☐ A. \$54.60

☐ C. \$109.20

☐ B. \$114.86

☐ D. \$64.62

6) Calculate $-47 + (-26)$.

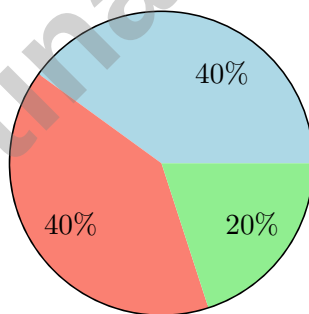
☐ A. -73

☐ C. 21

☐ B. -21

☐ D. 73

7) A recipe calls for 2 cups of flour for every 5 cups of milk. What is the constant of proportionality from milk to flour?



8)

The circle graph shows the results of a survey on transportation methods. Blue is cars (40%), salmon is buses (40%), and green is bicycles (20%). If 500 people were surveyed, how many use bicycles?

☐ A. 50

☐ C. 200

☐ B. 100

☐ D. 400



9) A worker earns \$60 for working $2\frac{1}{2}$ hours. What is the hourly wage?

☐ A. \$150 per hour

☐ C. \$25 per hour

☐ B. \$20 per hour

☐ D. \$24 per hour

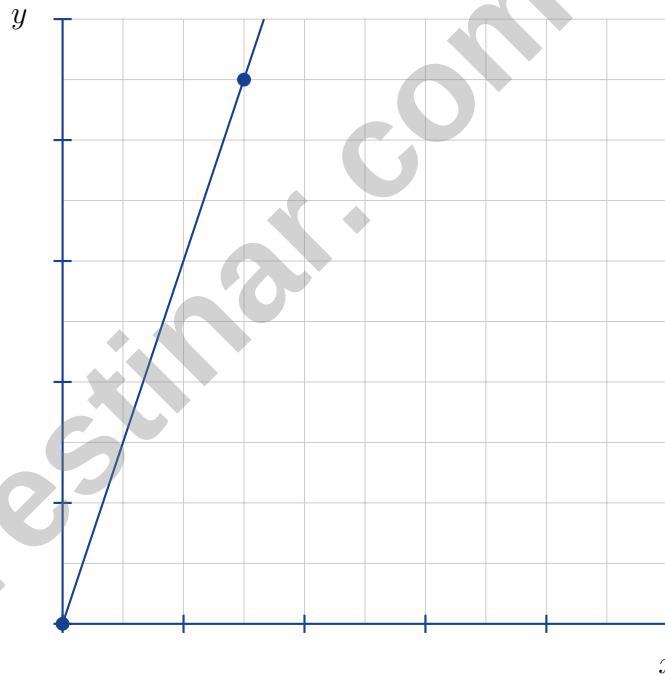
10) A student claims: “The relationship is proportional because the y -values keep increasing.” Is this correct?

☐ A. Yes, increasing y is the definition

☐ C. Yes, but only if x also increases

☐ B. Cannot determine without seeing the data

☐ D. No; must have constant ratio y/x



11)

The origin and the point (3,9) lie on the same proportional line. What is the unit rate k ?

☐ A. 0.3

☐ C. 3

☐ B. 1

☐ D. 9

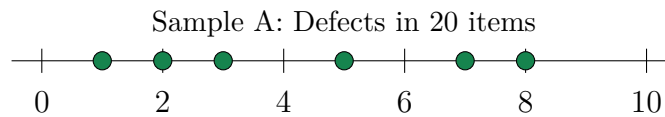


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& answers

- 1) Store A has a mean daily sales of \$450 with a MAD of \$30. Store B has a mean of \$480 with a MAD of \$90. Which conclusion is best supported?

- ☐ A. Store A typically sells more than Store B
- ☐ B. Both stores are equally consistent
- ☐ C. Store B typically sells more, but with less consistency
- ☐ D. Store B's sales are more predictable due to lower MAD

2)



Based on Sample A shown, if a factory makes 200 items, about how many defects are expected?

- ☐ A. 30
- ☐ B. 40
- ☐ C. 50
- ☐ D. 60
- 3) A recipe calls for 2 cups of flour for every 3 cups of sugar. If f is flour and s is sugar, which equation shows this proportional relationship?

- ☐ A. $f = \frac{3}{2}s$
- ☐ B. $f = s + 1$
- ☐ C. $f = 2s + 3$
- ☐ D. $f = \frac{2}{3}s$

- 4) Evaluate $10 - 2x$ when $x = 2$.



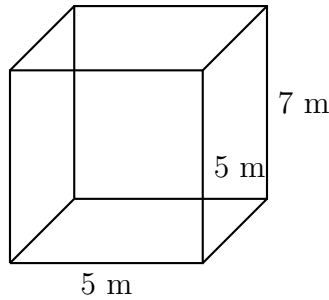
5) Which expression has the greatest absolute value?

☐ A. $-2.3 + 1.5$

☐ C. $3.1 - 4.2$

☐ B. $-5.8 - 0.2$

☐ D. $-1.5 + 2.8$



6)

The net shown represents a rectangular prism. What is the surface area of the prism?

☐ A. 70 m^2

☐ C. 190 m^2

☐ B. 140 m^2

☐ D. 350 m^2

7) Simplify: $(w^4)^2$

☐ A. w^2

☐ C. w^8

☐ B. w^6

☐ D. w^{16}

8) Solve for x : $3(2x - 1) = 15$

☐ A. $x = 2$

☐ C. $x = 4$

☐ B. $x = 3$

☐ D. $x = 5$

9) Which inequality represents “the sum of a number and 2 is not equal to 7”?

☐ A. $n + 2 \neq 7$

☐ C. $n \neq 5$

☐ B. $n + 2 = 7$

☐ D. $n + 7 \neq 2$



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& answers

1) What is 5% of 200?

☐ A. 5

☐ B. 20

☐ C. 15

☐ D. 10

2) What is $\frac{2}{25}$ as a decimal?

☐ A. 0.08

☐ B. 0.25

☐ C. 0.52

☐ D. 0.92

3) Evaluate $2(a - 3) + 5$ when $a = 5$.

☐ A. 11

☐ B. 8

☐ C. 6

☐ D. 9

4) Simplify: $\frac{m^5}{m^2}$

☐ A. m^3

☐ B. m^7

☐ C. m^{10}

☐ D. $\frac{m}{m^3}$

5) Solve for x : $2(x - 7) = 2x - 14$

☐ A. $x = 0$ only

☐ B. $x = 7$ only

☐ C. All real numbers

☐ D. No solution

6) Solve: $\frac{x}{-4} > 3$

☐ A. $x < -12$

☐ B. $x > -12$

☐ C. $x > -\frac{3}{4}$

☐ D. $x > 12$



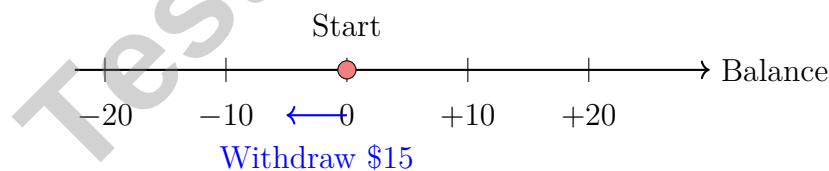
- 7) Olivia compares two budgets. Budget A: 40% expenses, 30% savings, 30% investments. Budget B: 45% expenses, 35% savings, 20% investments. How much more does Budget A allocate to investments than Budget B?

- ☐ A. 5% ☐ C. 15%
☐ B. 20% ☐ D. 10%

- 8) What is $-\frac{2}{3} \div \frac{4}{5}$?

- ☐ A. $-\frac{5}{6}$ ☐ C. $\frac{8}{15}$
☐ B. $-\frac{8}{15}$ ☐ D. $\frac{5}{6}$

- 9) A catering service charges a \$250 setup cost and \$15 per guest. If the event cost \$520, write an equation to represent the number of guests g attending, solve for g , and verify your answer.



10)

A bank account has a balance of \$0 (neutral). If a withdrawal of \$15 is made, what is the new balance?

- ☐ A. -\$15 ☐ C. \$0
☐ B. +\$15 ☐ D. -\$30



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& answers

Tennessee TCAP Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Tennessee TCAP practice test.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.NS.2d) Fractions with denominators that include prime factors other than 2 or 5 do not terminate. Only $\frac{1}{3}$ has a denominator (3) with such a factor.
- 2) **Choice D is correct.** (7.NS.1-7.NS.3) $-2 - (-8) = -2 + 8 = 6$. The opposite of -8 is 8, and $-2 + 8 = 6$.
- 3) **Choice D is correct.** (7.RP.1-7.RP.3) Linear scale is 1 : 12. Model dimensions: 1 ft, $\frac{10}{12}$ ft, $\frac{8}{12}$ ft. Volume scales by $(1/12)^3 = 1/1728$. Real volume is $12 \times 10 \times 8 = 960$ cu ft. Model volume = $960 \div 1728 = \frac{960}{1728}$ cu ft.
- 4) **Choice D is correct.** (7.RP.3) 45% of 80 is $0.45 \times 80 = 36$ students.
- 5) **Choice D is correct.** (7.RP.3) Selling price = cost $\times 1.30$. So $84 = \text{cost} \times 1.30$, giving cost = $84 \div 1.30 \approx \$64.62$.
- 6) **Choice A is correct.** (7.NS.1b) Both numbers are negative. Add absolute values: $|-47| + |-26| = 47 + 26 = 73$. Keep the negative sign: $-47 + (-26) = -73$.
- 7) **The correct answer is $\frac{2}{5}$.** (7.RP.1-7.RP.3) The ratio flour to milk is 2 : 5, so the constant is $\frac{2}{5}$.
- 8) **Choice B is correct.** (7.SP.1-7.SP.4) 20% of 500 = $0.20 \times 500 = 100$ people.
- 9) **Choice D is correct.** (7.RP.1-7.RP.3) Hourly wage = $\frac{60}{\frac{1}{2}} = \frac{60}{5/2} = 60 \times \frac{2}{5} = 24$ dollars per hour.
- 10) **Choice D is correct.** (7.RP.1-7.RP.3) A proportional relationship requires constant ratio $y/x = k$, not just increasing y values.
- 11) **Choice C is correct.** (7.RP.1-7.RP.3) Since the relationship is proportional, $k = \frac{y}{x} = \frac{9}{3} = 3$.
- 12) **The correct answer is \$6000.** (7.RP.3) $I = 5000 \times 0.08 \times 2.5 = \1000 . $A = 5000 + 1000 = \$6000$.
- 13) **Choice C is correct.** (7.RP.3) The shaded portion represents 60 out of 100 units. Set up the proportion: $\frac{60}{100} = \frac{p}{100}$, so $p = 60\%$.
- 14) **Choice D is correct.** (7.RP.3) Account B at 6% earns more growth than Account A at 4% over the same period. The chart reflects this with the higher bar for Account B at Month 6.
- 15) **Choice B is correct.** (7.NS.1-7.NS.3) Division by a fraction equals multiplication by the reciprocal.
- 16) **Choice C is correct.** (7.NS.1-7.NS.3) Start at 5, go down 8: $5 - 8 = -3$ (basement). Then up 6: $-3 + 6 = 3$.
- 17) **Choice B is correct.** (7.NS.1-7.NS.3) $1 \times 1 = 1$, so $\sqrt{1} = 1$.
- 18) **Choice A is correct.** (7.NS.1-7.NS.3) Final level = $12.5 - 2.3 + 1.8 - 0.5 = 11.5$ cm.
- 19) **Choice D is correct.** (7.G.1-7.G.5) Adjacent angles on a straight line are supplementary: $e = 180 - 45 = 135^\circ$.
- 20) **Choice C is correct.** (7.NS.2) A: $0.5 \times 10 = 5$. B: $0.25 \times 20 = 5$. C: $(-2) \times (-3.5) = 7$. D: $(-1) \times 5 = -5$. The largest is 7 (only C).
- 21) **The correct answer is A,C.** (7.SP.1-7.SP.4) Sample 1: $\frac{36}{120} = 0.30$; Sample 2: $\frac{27}{90} = 0.30$. Both show 30%, so A is true. Equal proportions allow reliable population estimates (C is true). B and D is false (Sample 1 is larger at 120 vs 90).
- 22) **The correct answer is 13%.** (7.RP.3) Percent error = $\frac{|2.8 - 3.2|}{3.2} \times 100\% = \frac{0.4}{3.2} \times 100\% = 12.5\%$, rounds to 13%.
- 23) **Choice A is correct.** (7.SP.5-7.SP.8) Probabilities must sum to 1: $0.1 + 0.2 + 0.3 + 0.25 + P(5) = 1 \Rightarrow P(5) = 0.15$.
- 24) **Choice A is correct.** (7.SP.3) The histogram center (where bars cluster) indicates the typical score range. Morning (85–90) is higher than afternoon (75–80), so morning students performed better on average.
- 25) **The correct answer is $\frac{3}{4}$.** (7.NS.1-7.NS.3) Common denominator is 12: $\frac{5}{12} + \frac{4}{12} = \frac{9}{12} = \frac{3}{4}$.
- 26) **Choice C is correct.** (7.RP.3) Processing fee = $0.03 \times 1000 = \$30$.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) The unit rate is 0.85 euros per US dollar. For \$100: $100 \times 0.85 = 85$ euros.
- 28) **Choice C is correct.** (7.G.4-7.G.6) Rectangle: $10 \times 7 = 70$ sq units. Triangle: $\frac{1}{2} \times 2 \times 7 = 7$ sq units. Total: $70 + 7 = 77$ sq units.
- 29) **Choice D is correct.** (7.RP.3) Interest: $0.0125 \times 800 = \$10$ per year.
- 30) **Choice D is correct.** (7.RP.3) Final balance: $2500 + 481.60 = 2981.60$. So $2500(1 + r)^2 = 2981.60 \Rightarrow (1 + r)^2 = 1.1926 \Rightarrow 1 + r = 1.0920 \Rightarrow r = 9.2\%$.



Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 5 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **5** full-length Math practice tests and **2** online tests to help Grade 7 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.



THIS BOOK INCLUDES:

5 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & Explanations



MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL GAIN



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

Learn with clear explanations and step-by-step solutions.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

Apply your knowledge and achieve your best score!

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



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