

5

Utah RISE

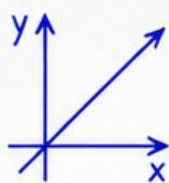
GRADE

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



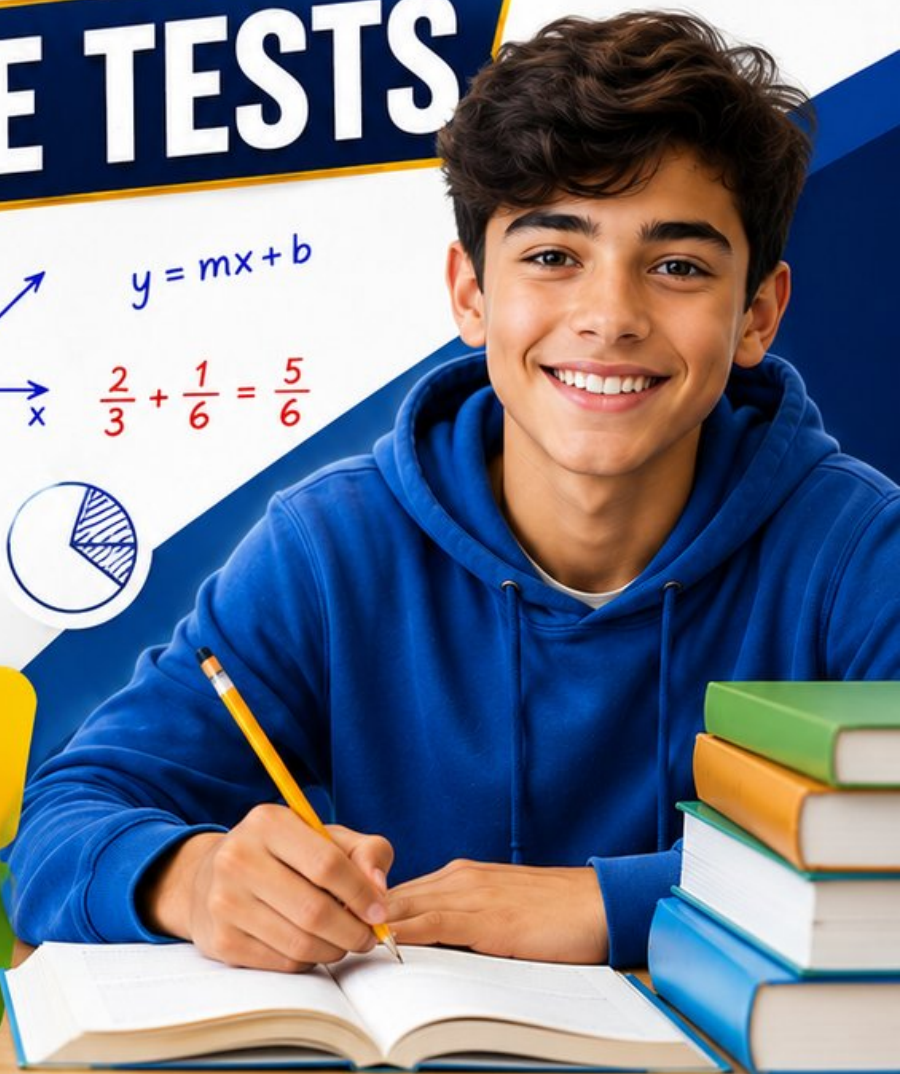
Strengthen
Math Skills



Detailed Answers
& Explanations

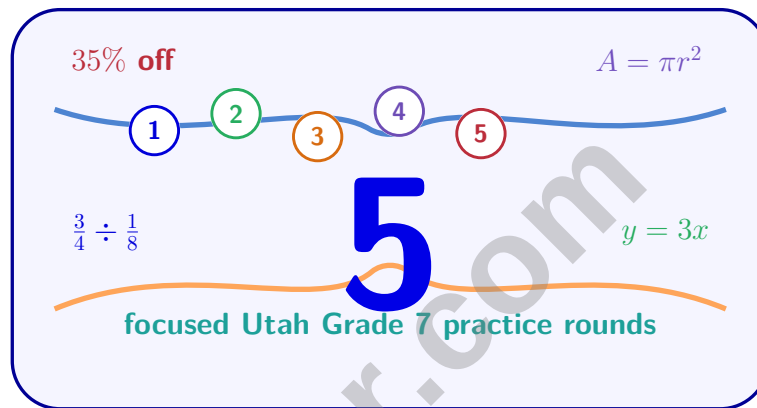


Improve Test
Performance



5 Utah RISE Grade 7 Math Practice Tests

Five-Test Math Practice with Clear Keys and Standards Review



Five complete 40-question Grade 7 RISE 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



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Utah Grade 7 Problem Solver!

Five focused rounds for sharper RISE math thinking

This book gives you five full Grade 7 RISE 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 Utah 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.

Utah 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 RISE 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

Table of Contents

★ Practice Test 1	_____	13
★ Practice Test 2	_____	28
★ Practice Test 3	_____	41
★ Practice Test 4	_____	58
★ Practice Test 5	_____	71
Practice Test Answer Keys	_____	85
Practice Test Answers and Explanations	_____	89

- 1) A proportional relationship is modeled by the equation $y = \frac{7}{2}x$. What is the value of y when $x = 6$?

☐ A. $y = 12$

☐ B. $y = 18$

☐ C. $y = \frac{7}{12}$

☐ D. $y = 21$

- 2) Simplify: $0 - (-9)$

☐ A. 9

☐ B. -9

☐ C. 0

☐ D. -18

- 3) A school had 360 students. If $\frac{1}{3}$ of them attend the science club, what percent is that?

- 4) 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

- 5) A toy costs \$20 at a store. The store adds an 8% sales tax. What is the final price?

☐ A. \$20.80

☐ B. \$28

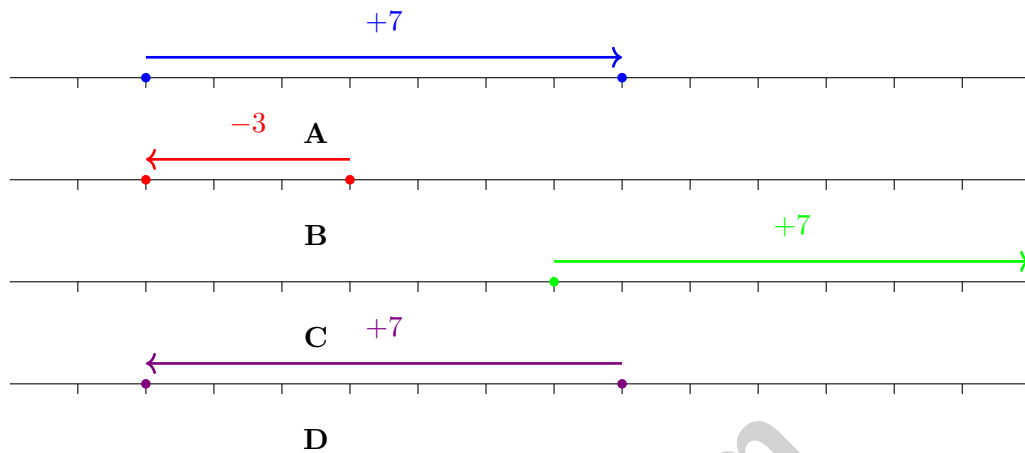
☐ C. \$22

☐ D. \$21.60



Scan me!
For more practice
& answers

6) Which number line correctly shows $-3 + 7$?



7) A loan of \$5000 at 8% simple interest is repaid after 2.5 years. What is the total amount repaid?

8) Which expression represents “the sum of 6 and twice a number t ”?

☐ A. $6 + 2t$
☐ C. $6(2 + t)$
☐ B. $2(6 + t)$
☐ D. $6 + t^2$

9) A plant was estimated to grow to a height of 18 inches, but it actually grew to 22 inches. What is the percent error? Round to the nearest tenth.



- 10) A company tracks employee satisfaction. Very satisfied is 38%, satisfied is 42%, neutral is 15%, and unsatisfied is 5%. If there are 200 employees, how many are very satisfied?
- ☐ A. 38 ☐ C. 76
☐ B. 60 ☐ D. 84
- 11) A runner covers $2\frac{1}{2}$ miles in $\frac{2}{5}$ hour. What is the runner's speed?
- ☐ A. 6.5 mph ☐ C. $\frac{5}{4}$ mph
☐ B. $\frac{5}{2}$ mph ☐ D. $\frac{25}{4}$ mph
- 12) A student's part-time job pays \$600 per month. After saving 25%, how much money does the student have left to spend?
- ☐ A. \$150 ☐ C. \$400
☐ B. \$300 ☐ D. \$450
- 13) Subtract: $\frac{5}{8} - \frac{7}{8}$
- ☐ A. $-\frac{1}{4}$ ☐ C. $-\frac{2}{8}$
☐ B. $\frac{1}{4}$ ☐ D. $\frac{3}{4}$
- 14) What is $-36 \div (-9)$?
- ☐ A. -4 ☐ C. 3
☐ B. -3 ☐ D. 4
- 15) The population of a city is 1.5×10^6 . How is this number written in standard form?
- ☐ A. 15,000 ☐ C. 1,500,000
☐ B. 150,000 ☐ D. 15,000,000



Scan me!
For more practice
& answers

- 1) 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
- 2) If you double the principal but keep the rate and time the same, by how much does the simple interest increase?
- ☐ A. The interest stays the same ☐ C. The interest is cut in half
☐ B. The interest triples ☐ D. The interest doubles
- 3) A rock climber descends 45 meters down a cliff, then climbs up 28 meters. What is her net change in elevation?
- ☐ A. -17 m ☐ C. -73 m
☐ B. 17 m ☐ D. -28 m
- 4) Given a proportional relationship with $k = \frac{5}{2}$, which of the following statements is correct?
- ☐ A. The equation is $y = \frac{2}{5}x$. ☐ C. When $x = 4$, $y = 10$.
☐ B. When $x = 5$, $y = 2$. ☐ D. When $x = 2$, $y = 5$.
- 5) What is the greatest common numerical factor of $14ab$ and $21a$?



- 6) A rectangular prism has length 10 cm, width 4 cm, and height 3 cm. What is the surface area?
- ☐ A. 120 cm^2 ☐ C. 180 cm^2
☐ B. 164 cm^2 ☐ D. 240 cm^2
- 7) A rental company charges \$25 per day. If a customer has a budget of at most \$200, what is the maximum number of days they can rent?
- ☐ A. $25d \geq 200$ ☐ C. $d > 8$
☐ B. $d \geq 8$ ☐ D. $d \leq 8$
- 8) An internet company emails all 10,000 of its customers asking them to rate their service. Only 200 customers respond. Which statement best describes this situation?
- ☐ A. The 200 respondents are a valid random sample ☐ C. Low response rate indicates voluntary response bias
☐ B. The email method eliminates all bias ☐ D. The response rate proves the sample is representative
- 9) A spinner is spun 60 times, and section A appears 18 times. What is the experimental probability of landing on section A?
- ☐ A. 0.20 ☐ C. 0.30
☐ B. 0.25 ☐ D. 0.35
- 10) Solve: $4x + 3 = 15$
- ☐ A. $x = 2$ ☐ C. $x = 4$
☐ B. $x = 3$ ☐ D. $x = 6$



Scan me!
For more practice
& answers

1) Expand: $4(2x - 3)$

☐ A. $6x - 12$

☐ B. $8x - 12$

☐ C. $8x - 3$

☐ D. $6x - 7$

2) Solve: $1.5x - 3 \leq 4.5$

☐ A. $x \leq 5$

☐ B. $x \geq 5$

☐ C. $x < 5$

☐ D. $x \leq 4.5$

3) Explain why division is NOT commutative: Why is $12 \div 3$ different from $3 \div 12$?

☐ A. Division order does not matter; both equal 4

☐ C. One is positive, the other is negative

☐ B. Division order matters; $12 \div 3 = 4$ but $3 \div 12 = 0.25$

☐ D. Division is always commutative

4) A number x is doubled and then 5 is added. The result is 21. What is x ?

5) A scientist records a measurement: 4.06×10^4 meters. What is this in standard form?

☐ A. 40,600

☐ B. 406,000

☐ C. 4,060

☐ D. 40,600,000



Scan me!
For more practice
& answers

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

☐ A. m^3

☐ B. m^7

☐ C. m^{10}

☐ D. $\frac{m}{m^3}$

7) Which of the following does NOT represent a proportional relationship?

☐ A. $y = 6x$

☐ B. $y = 0.5x$

☐ C. $y = x + 2$

☐ D. $y = \frac{3}{4}x$

8) A rectangular swimming pool is 25 meters long and 15 meters wide. A scale drawing is created where 1 cm represents 5 meters. What is the length of the pool on the drawing in centimeters?

9) A triangular pyramid with height 12 cm and base area 20 cm^2 is cut by a plane parallel to the base at a height of 8 cm from the apex. What is the area of the triangular cross-section in square centimeters?



Utah RISE 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 Utah RISE practice test.



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) Choice D is correct. (7.RP.1-7.RP.3) $y = \frac{7}{2}(6) = \frac{7 \times 6}{2} = \frac{42}{2} = 21$.
- 2) Choice A is correct. (7.NS.1-7.NS.3) $0 - (-9) = 0 + 9 = 9$. The opposite of -9 is 9.
- 3) The correct answer is 33.3%. (7.RP.3) $\frac{1}{3} = 0.333\ldots = 33.\bar{3}\%$. Approximately 33% of the students attend the science club.
- 4) 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.
- 5) Choice D is correct. (7.RP.3) Tax = $0.08 \times 20 = \$1.60$. Final price = $20 + 1.60 = \$21.60$.
- 6) Choice A is correct. (7.NS.1b) Start at -3 and move 7 units to the right to reach 4. Options B, C, and D either move in the wrong direction or start at the wrong point.
- 7) The correct answer is \$6000. (7.RP.3) $I = 5000 \times 0.08 \times 2.5 = \1000 . $A = 5000 + 1000 = \$6000$.
- 8) Choice A is correct. (7.EE.1-7.EE.2) Twice a number t is $2t$. Sum of 6 and $2t$ is $6 + 2t$.
- 9) The correct answer is 18.2%. (7.RP.3) Percent error = $\frac{|18-22|}{22} \times 100\% = \frac{4}{22} \times 100\% \approx 18.18\%$, rounds to 18.2%.
- 10) Choice C is correct. (7.SP.1-7.SP.4) 38% of 200 = $0.38 \times 200 = 76$ employees.
- 11) Choice D is correct. (7.RP.1-7.RP.3) Unit rate: $\frac{2\frac{1}{2}}{2/5} = \frac{5/2}{2/5} = \frac{5}{2} \times \frac{5}{2} = \frac{25}{4} = 6.25$ mph.
- 12) Choice D is correct. (7.RP.3) Amount left = $(100\% - 25\%) \times \$600 = 75\% \times 600 = 0.75 \times 600 = \450 .
- 13) Choice A is correct. (7.NS.1-7.NS.3) Same denominator: $\frac{5}{8} - \frac{7}{8} = -\frac{2}{8} = -\frac{1}{4}$.
- 14) Choice D is correct. (7.NS.1-7.NS.3) Negative divided by negative is positive. Calculate the magnitude: $36 \div 9 = 4$. Apply sign rule: $(-) \div (-) = (+)$. Thus $-36 \div (-9) = 4$.
- 15) Choice C is correct. (7.NS.1-7.NS.3) $1.5 \times 10^6 = 1.5 \times 1,000,000 = 1,500,000$.
- 16) Choice D is correct. (7.RP.1-7.RP.3) Set up proportion: $\frac{2}{3} = \frac{8}{y}$. Cross multiply: $2y = 24$, so $y = 12$.
- 17) Choice D is correct. (7.RP.1-7.RP.3) From unit rate (1, 0.65), at $x = 4$, $y = 4 \times 0.65 = \$2.60$.
- 18) Choice D is correct. (7.RP.3) Using the proportion $\frac{30}{100} = \frac{x}{120}$, cross-multiply: $30 \times 120 = 100x$, so $x = 36$ items.
- 19) Choice A is correct. (7.NS.2d) Divide $9 \div 20 = 0.45$. Since $20 = 4 \times 5 = 2^2 \times 5$, this is terminating.
- 20) The correct answer is A,D. (7.RP.1-7.RP.3) Options A and D are the two correct answers. A is true because $y = kx = 2x$ is the equation for any proportional relationship with $k = 2$. D is true because substituting $x = 2$ into $y = 2x$ gives $y = 4$. All other options are false.
- 21) Choice A is correct. (7.NS.1-7.NS.3) Elevation gain: $250 - 100 = 150$ meters.
- 22) Choice D is correct. (7.SP.5-7.SP.8) Since $P(\text{Heads}) + P(\text{Tails}) = 1$, we have $P(\text{Tails}) = 1 - \frac{2}{3} = \frac{1}{3}$.
- 23) Choice B is correct. (7.NS.1-7.NS.3) $8 \times 8 = 64$, therefore $\sqrt{64} = 8$.
- 24) Choice B is correct. (7.NS.2) $-6 \times \frac{2}{3} = \frac{-12}{3} = -4$. A negative times a positive is negative.
- 25) Choice C is correct. (7.SP.3) City A clusters at 70–75 (range 5), indicating consistency. City B spans 50–90 (range 40), showing high variability. Both distributions include temperatures 70–75 degrees, so they overlap there.
- 26) Choice D is correct. (7.RP.3) If vendor keeps 80% of sales, then $0.80 \times \text{sales} = 2400$. Sales = $2400 \div 0.80 = \$3,000$.
- 27) Choice D is correct. (7.RP.3) Simple: $600 \times 0.11 \times 2 = 132$. Compound: $600(1.11)^2 = 739.26$; interest = 139.26 . Difference: $139.26 - 132 = 7.26$.
- 28) Choice C is correct. (7.G.4-7.G.6) Square: $5 \times 5 = 25$ cm². Triangle: $\frac{1}{2} \times 5 \times 2 = 5$ cm². Total: $25 + 5 = 30$ cm².
- 29) Choice D is correct. (7.RP.1-7.RP.3) Scale 1 in. = 4 ft. means $\frac{1}{4} = \frac{x}{16}$, so $x = 4$ inches. The student incorrectly multiplied instead of dividing.
- 30) The correct answer is 14.465. (7.NS.1-7.NS.3) Average current temperature: $\frac{12.5+13.2+12.8+14.1}{4} = \frac{52.6}{4} = 13.15^\circ\text{C}$. Increase of 10%: $0.10 \times 13.15 = 1.315^\circ\text{C}$. New temperature: $13.15 + 1.315 = 14.465^\circ\text{C}$.
- 31) Choice D is correct. (7.RP.3) Savings allocation: $0.40 \times 4000 = \$1,600$.



Scan me!
For more practice
& answers

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!



VISIT **TESTINAR.COM/MATH7**
FOR MORE PRACTICE TESTS



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY