

4

Nebraska

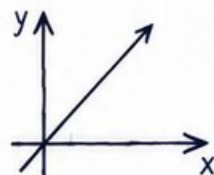
NSCAS Growth

GRADE
7
MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs

$$y = mx + b$$



$$\frac{2x}{3} + \frac{x}{6} = 2$$



$$V = \frac{1}{3} \pi r^2 h$$



4 PRINTED TESTS



2 ONLINE TESTS



USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS

FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



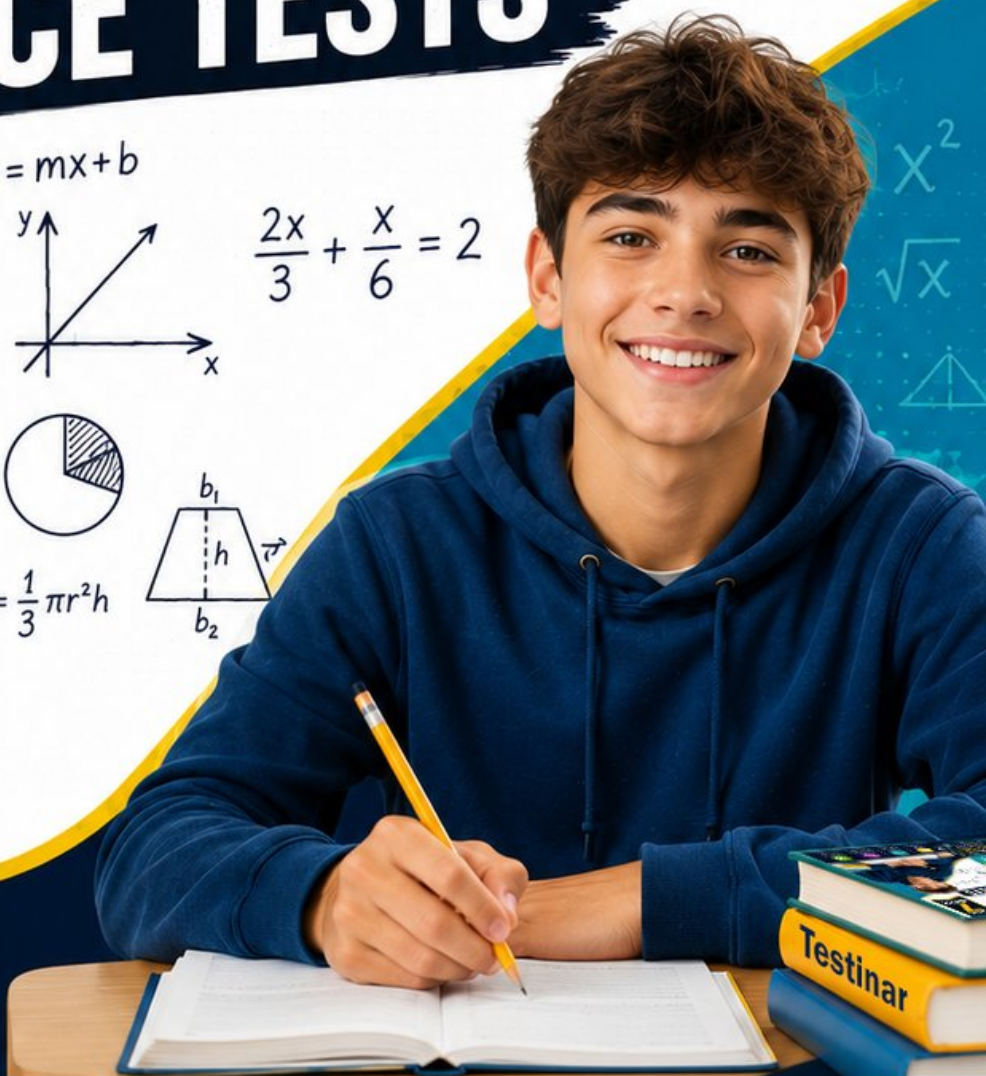
Strengthen
Math Skills



Detailed Answers
& Explanations

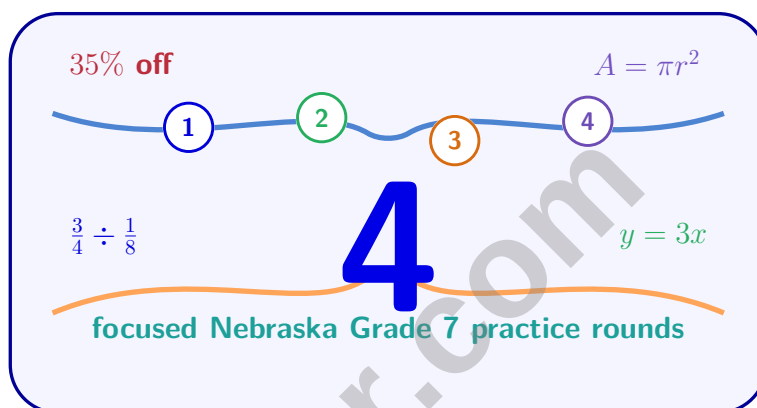


Improve Test
Performance



4 Nebraska NSCAS Growth Grade 7 Math Practice Tests

Four Standards-Based Math Rounds for NSCAS Growth Readiness



Four complete 40-question Grade 7 NSCAS Growth 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, Nebraska Grade 7 Problem Solver!

Four focused rounds for sharper NSCAS Growth math thinking

This book gives you four full Grade 7 NSCAS Growth 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 Nebraska 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 four-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.

Nebraska 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?

Four NSCAS Growth tests, 160 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 3–4	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	_____	27
★ Practice Test 3	_____	40
★ Practice Test 4	_____	54
Practice Test Answer Keys	_____	68
Practice Test Answers and Explanations	_____	71

1) Two exam score distributions have overlapping ranges but different centers. Which pair of statistics best justifies moving a class to a harder curriculum?

- ☐ A. Comparing means only ☐ D. Comparing minimums and maximums
- ☐ B. Comparing ranges only
- ☐ C. Comparing medians and MAD

2) A circle has an area of 154 square centimeters. What is its radius? Use $\pi \approx \frac{22}{7}$.

- ☐ A. 7 centimeters ☐ C. 14 centimeters
- ☐ B. 11 centimeters ☐ D. 49 centimeters

3) A circle graph shows the genres of books in a library. If the Romance sector has a central angle of 90 degrees and the total is 360 degrees, what percentage of books are Romance?

- ☐ A. 10% ☐ C. 25%
- ☐ B. 15% ☐ D. 50%

4) A certificate of deposit starts with \$2,000 and earns 4% annual compound interest. After how many complete years will the balance first exceed \$2,500?

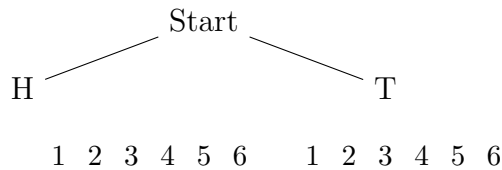
5) A box of cereal contains 24 collectible cards: 6 are baseball players, 9 are basketball players, and 9 are soccer players. If you draw one card at random, what is the probability of drawing a basketball or soccer player card?

- ☐ A. $\frac{1}{4}$ ☐ C. $\frac{3}{4}$
- ☐ B. $\frac{1}{2}$ ☐ D. $\frac{9}{24}$



Scan me!
For more practice
& answers

- 6) A fair six-sided die is rolled and a coin is flipped. Which of the following is the correct way to count the sample space?



- ☐ A. $6 + 2 = 8$ outcomes
 ☐ C. $6 - 2 = 4$ outcomes
☐ B. $6 \times 2 = 12$ outcomes
 ☐ D. $\frac{6}{2} = 3$ outcomes
- 7) A box plot compares reaction times (in milliseconds) for two drivers. Driver A: Median 550, IQR 100; Driver B: Median 600, IQR 200. Which driver is more reliable?
- ☐ A. Driver A (faster median and more consistent)
☐ B. Driver B (slower but more variable)
☐ C. Both drivers are equally reliable
☐ D. Driver B (higher median indicates faster response)
- 8) A bag contains 3 red marbles and 5 blue marbles. What is the probability of drawing a red marble first, WITHOUT replacing it, then drawing a blue marble?
- ☐ A. $\frac{3}{8} \cdot \frac{5}{8}$
☐ C. $\frac{15}{56}$
☐ B. $\frac{3}{8} \cdot \frac{4}{7}$
☐ D. $\frac{15}{64}$
- 9) What is $-\frac{3}{4} \times (-\frac{8}{9})$?



- 10) A penny, nickel, and dime were tossed together 200 times. The number of times exactly 2 coins landed on heads was 53. What is the experimental probability of getting exactly 2 heads when tossing the three coins?

☐ A. $\frac{2}{3}$
☐ B. $\frac{53}{200}$

☐ C. 0.27
☐ D. 0.375

- 11) In a back-to-back stem-and-leaf plot, Class A (left) shows leaves 6, 3, 1 for stem 8, and Class B (right) shows leaves 2, 5, 7. Reading from the plot, which value belongs to Class A with stem 8?

☐ A. 82
☐ B. 83

☐ C. 85
☐ D. 87

- 12) Between which two consecutive integers does $\sqrt{40}$ lie? (Write your answer in the form “between a and b ”)

- 13) A composite figure is formed by a square ($8\text{ m} \times 8\text{ m}$) with a right triangle (legs 8 m and 3 m) attached to one side. What is the total area?

☐ A. 64 m^2
☐ B. 76 m^2

☐ C. 88 m^2
☐ D. 100 m^2



Scan me!
For more practice
& answers

- 1) Raw data: 55, 52, 58, 51, 56, 53, 59. After creating a stem-and-leaf plot and ordering, what is the value at the second position?

☐ A. 51☐ C. 53☐ B. 52☐ D. 55

- 2) An investment account earns 7% simple interest per year. If someone invests \$3,000, how much interest will they earn after 3 years?

- 3) The temperature was -3°C at dawn. By noon, it had risen 18°C . What was the noon temperature?

- 4) Which statement is true?

☐ A. $\sqrt{16} = 4$ and $4^2 = 16$ ☐ C. $\sqrt{36} = 6$ and $6^2 = 37$ ☐ B. $\sqrt{25} = -5$ and $5^2 = 25$ ☐ D. $\sqrt{49} = 7$ and $7^2 = 49$

- 5) A price p increases by 7%. Write the new price in factored form.

☐ A. $p + 0.07p = p(1 + 0.07) = 1.07p$ ☐ C. $0.07p$ ☐ B. $p - 0.07p$ ☐ D. $p + 7$ 

Scan me!
For more practice
& answers

6) A student writes: $(-7) \times 5 = 35$. What error did the student make?

- ☐ A. Forgot to apply the negative sign ☐ C. Multiplied the absolute values incorrectly
☐ B. Added instead of multiplied ☐ D. Used the wrong order of operations

7) Tanya deposits \$800 in an account at 9% annual compound interest. What is the balance after 2 years?

- ☐ A. \$944.72 ☐ C. \$952
☐ B. \$972 ☐ D. \$950.48

8) A smoothie recipe uses ingredients in this ratio:

Berries (cups)	1	2.5	x
Yogurt (cups)	0.5	y	4

What is $x + y$?

- ☐ A. 10 ☐ C. 8
☐ B. 11 ☐ D. 9.25

9) Simplify: $\frac{2}{3}m + \frac{1}{6}m$

- ☐ A. $\frac{3}{9}m$ ☐ C. $\frac{1}{2}m$
☐ B. $\frac{5}{6}m$ ☐ D. $\frac{3}{6}m$

10) Solve: $2(x - 3) \leq 10$

- ☐ A. $x \leq 3$ ☐ C. $x \leq 13$
☐ B. $x \leq 8$ ☐ D. $x < 8$



- 1) A student rolled a number cube and recorded the results in a bar graph. Out of 240 rolls, the number 6 appeared in 38 rolls. What is the experimental probability of rolling a 6?

☐ A. $\frac{1}{6}$
☐ B. $\frac{38}{240}$

☐ C. 0.19
☐ D. 0.60

- 2) Two histograms show daily sleep hours for working professionals vs. students. Working Professionals: concentrated at 5–7 hours. Students: concentrated at 7–9 hours. Both show similar spread. Which is the best interpretation?

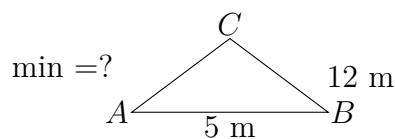
☐ A. Students typically sleep approximately 2 hours more than professionals
☐ B. Students are healthier than professionals
☐ C. Sleep requirements are identical for both groups
☐ D. Professionals never sleep as much as students

- 3) A track is shaped like a rectangle with two semicircles on the shorter ends. The rectangle is 10 m long and 6 m wide. The semicircles have a diameter of 6 m. (Use $\pi \approx 3.14$.) What is the total area?

☐ A. 60 m^2
☐ B. 74.13 m^2

☐ C. 88.26 m^2
☐ D. 94.26 m^2

4)



What is the minimum possible length (in whole meters) for the third side of a triangle with sides 5 m and 12 m?

☐ A. 6 m
☐ B. 7 m

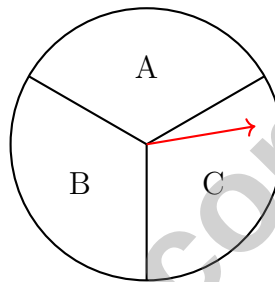
☐ C. 8 m
☐ D. 9 m



5) A student claims: "An arc is the same as a chord." Is this correct?

- ☐ A. Yes, they are the same
 ☐ C. Yes, but only if the arc is very small
☐ B. No; an arc is a curved part of the circle, while a chord is a straight line segment
 ☐ D. No; a chord is always longer than an arc

6) A spinner is divided into 3 equal sections labeled A, B, and C. What is the probability of spinning A?



- ☐ A. $\frac{1}{2}$
☐ C. $\frac{2}{3}$
☐ B. $\frac{1}{3}$
☐ D. 1

7) Simplify: $10p - 5p + 3p - 2p$

- ☐ A. $6p$
☐ C. $16p$
☐ B. $20p$
☐ D. $4p$

8) Solve and identify the key step: $-5x \geq 20$

Original: $-5x \geq 20$

Divide both sides by -5 .

FLIP the inequality: $\geq$ becomes $\leq$

Result: $x \leq -4$

- ☐ A. $x \leq -4$
☐ C. $x < 4$
☐ B. $x \geq -4$
☐ D. $x = -4$



Scan me!
For more practice
& answers

Nebraska NSCAS Growth 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 Nebraska NSCAS Growth practice test.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.SP.1-7.SP.4) Medians show typical performance (center). MAD shows consistency. Together, they reveal whether the entire class has shifted up (higher median) with stable performance (stable MAD), justifying curriculum advancement.
- 2) **Choice A is correct.** (7.G.4-7.G.6) From $154 = \frac{22}{7} \times r^2$, we have $r^2 = 49$, so $r = 7$ cm.
- 3) **Choice C is correct.** (7.SP.1-7.SP.4) Percentage = $\frac{90}{360} \times 100\% = \frac{1}{4} \times 100\% = 25\%$.
- 4) **The correct answer is 6.** (7.RP.3) Year 5: $2000(1.04)^5 = 2433.31$. Year 6: $2000(1.04)^6 = 2530.64 > 2500$.
- 5) **Choice C is correct.** (7.SP.5-7.SP.8) Basketball or soccer: $9 + 9 = 18$. $P = \frac{18}{24} = \frac{3}{4}$.
- 6) **Choice B is correct.** (7.SP.5-7.SP.8) The counting principle for independent events uses multiplication: die outcomes (6) times coin outcomes (2) equals 12 total outcomes.
- 7) **Choice A is correct.** (7.SP.3) Reliability combines speed and consistency. Driver A has a faster (lower) median (550 vs. 600) and smaller IQR (100 vs. 200), meaning more predictable reaction times.
- 8) **Choice C is correct.** (7.SP.5-7.SP.8) Without replacement: $P(\text{red first}) = \frac{3}{8}$, then $P(\text{blue second}) = \frac{5}{7}$ (only 7 left). Product: $\frac{3}{8} \cdot \frac{5}{7} = \frac{15}{56}$.
- 9) **The correct answer is $\frac{2}{3}$.** (7.NS.2) $-\frac{3}{4} \times (-\frac{8}{9}) = \frac{3 \times 8}{4 \times 9} = \frac{24}{36} = \frac{2}{3}$. Negative times negative is positive.
- 10) **Choice B is correct.** (7.SP.6) Exactly 2 heads occurred 53 times in 200 tosses. Experimental probability = $\frac{53}{200} = 0.265 \approx 0.27$.
- 11) **Choice B is correct.** (7.SP.1-7.SP.4) In a back-to-back plot, Class A's leaves for stem 8 are 6, 3, 1, representing 86, 83, 81. One of these is 83.
- 12) **The correct answer is (6, 7).** (7.NS.1-7.NS.3) $6^2 = 36$ and $7^2 = 49$. Since $36 < 40 < 49$, the answer is between 6 and 7.
- 13) **Choice B is correct.** (7.G.4-7.G.6) Square: $8 \times 8 = 64 \text{ m}^2$. Triangle: $\frac{1}{2} \times 8 \times 3 = 12 \text{ m}^2$. Total: $64 + 12 = 76 \text{ m}^2$.
- 14) **Choice B is correct.** (7.G.4-7.G.6) Base area = $\frac{1}{2} \times 10 \times 6 = 30 \text{ in}^2$. Depth = $\frac{V}{B} = \frac{360}{30} = 12 \text{ in}$.
- 15) **Choice A is correct.** (7.G.1-7.G.5) $5^2 + 12^2 = 25 + 144 = 169 = 13^2$ ✓. This is the 5-12-13 Pythagorean triple.
- 16) **Choice B is correct.** (7.G.4-7.G.6) A chord of length r is shorter than the diameter $d = 2r$. Such a chord exists and is a valid chord in the circle.
- 17) **Choice A is correct.** (7.G.1-7.G.5) This is the converse of the Pythagorean theorem. When the square of the longest side equals the sum of squares of the other two sides, the angle opposite the longest side is a right angle.
- 18) **The correct answer is A, D.** (7.RP.1-7.RP.3) A and D are unit rates because each gives a price per single unit of weight. Option B is a distance, and option C is a total count.
- 19) **Choice A is correct.** (7.SP.5-7.SP.8) Blue sections = 2 out of 8 total. Probability = $\frac{2}{8} = \frac{1}{4}$.
- 20) **Choice B is correct.** (7.SP.1-7.SP.4) Group 1: $\frac{24}{80} = 0.30$ or 30%; Group 2: $\frac{35}{100} = 0.35$ or 35%; Group 3: $\frac{27}{90} = 0.30$ or 30%. Group 2 is different.
- 21) **Choice D is correct.** (7.RP.1-7.RP.3) Convert to common units: 120 feet = 1440 inches. Scale = $6 : 1440 = 1 : 240$. Student forgot unit conversion.
- 22) **Choice C is correct.** (7.RP.3) 85% of 40 is $0.85 \times 40 = 34$ questions.
- 23) **Choice B is correct.** (7.SP.1-7.SP.4) $54^\circ \div 360^\circ \times 100 = 15\%$.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) The diagram shows 6 equal parts totaling 18 miles. The equation is $6m = 18$, giving $m = 3$ miles per part. This represents a proportional relationship where each part measures the same distance.
- 25) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\frac{3/4}{1/6} = \frac{3}{4} \times 6 = \frac{18}{4} = \frac{9}{2} = 4.5$ mph.
- 26) **The correct answer is 24.** (7.EE.1-7.EE.2) Distribute and distribute the negative: $2x + 14 - x + 3 + 5$. Combine like terms: $(2x - x) + (14 + 3 + 5) = x + 22$. With $x = 2$: $2 + 22 = 24$.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) Expected ratio: $3/1 = 3$. For sugar 4: flour should be $3 \times 4 = 12$, not 13.
- 28) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\$36 \div 3 = \12 per month.



Scan me!
For more practice
& answers

One Last Encouragement

Hi, Determined Student!

◇ You did meaningful Grade 7 practice. That matters because confidence is built through action, not waiting until everything feels easy. This carefully paced book gave you four steady Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. ◇

★ **Remember this:** Carry this with you: you can learn hard things by breaking them into steps, asking good questions, and reviewing with honesty. ★

Take This With You

- **You Can Start:** Even when the problem looks big.
- **You Can Adjust:** When the first method is not enough.
- **You Can Learn:** From every corrected mistake.
- **You Can Improve:** One practice session at a time.

Grade 7 test-day tip: Walk into test day ready to think, not ready to be perfect. Thinking clearly is the goal.

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

Jay Daie

Your Grade 7 Math Friend

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **4** 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:

4

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](https://www.testinar.com/math7)

FOR MORE PRACTICE TESTS
AND LEARNING RESOURCES.



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY