

5

Iowa
ISASP

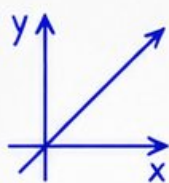
GRADE

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



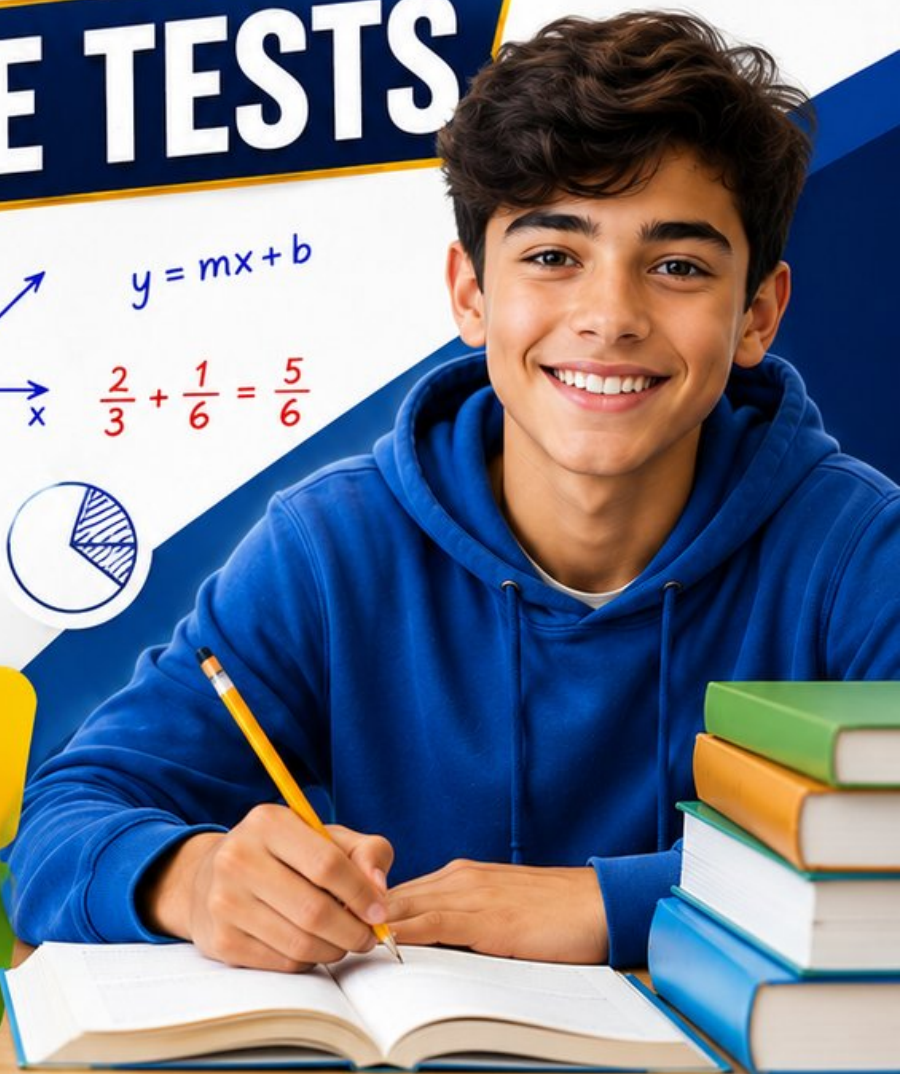
Strengthen
Math Skills



Detailed Answers
& Explanations

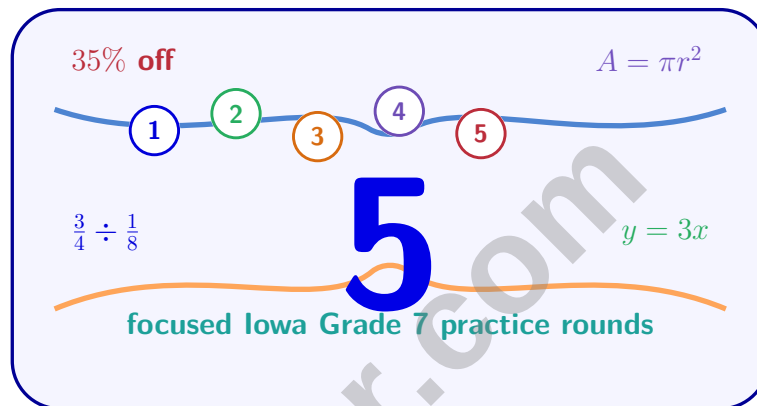


Improve Test
Performance



5 Iowa ISASP Grade 7 Math Practice Tests

Grade 7 Practice Tests with Review Tools and Complete Answer Support



Five complete 40-question Grade 7 ISASP 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, Iowa Grade 7 Problem Solver!

Five focused rounds for sharper ISASP math thinking

This book gives you five full Grade 7 ISASP 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 Iowa 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.

Iowa 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 ISASP 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

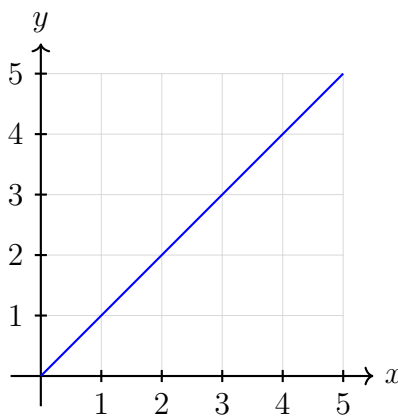
★ Practice Test 1	_____	13
★ Practice Test 2	_____	27
★ Practice Test 3	_____	41
★ Practice Test 4	_____	54
★ Practice Test 5	_____	69
Practice Test Answer Keys	_____	83
Practice Test Answers and Explanations	_____	87

- 1) A rectangle has dimensions $12\text{ cm} \times 8\text{ cm}$. It is reduced by a scale factor of $\frac{1}{3}$. What is the area of the reduced rectangle?
- ☐ A. 21.33 cm^2 ☐ C. 10.67 cm^2
☐ B. 26.67 cm^2 ☐ D. 32 cm^2
- 2) What is $-7 - 4$?
- ☐ A. 3 ☐ C. -11
☐ B. -3 ☐ D. 11
- 3) A factory produced 500 items. If 18% were defective, how many defective items were there?
- ☐ A. 70 ☐ C. 90
☐ B. 80 ☐ D. 100
- 4) A survey shows that in a group of 240 people, 22% prefer tea over coffee. How many people prefer tea?
- ☐ A. 22 ☐ C. 52.8
☐ B. 48 ☐ D. 66



Scan me!
For more practice
& answers

5) Which graph represents a proportional relationship?



- ☐ A. Only if $x > 0$ ☐ C. Cannot determine from graph
- ☐ B. No, line does not go through origin ☐ D. Yes, line goes through origin
- 6) A garden has 72 plants. If 25% are flowers and the rest are vegetables, how many vegetables are there?
- ☐ A. 18 ☐ C. 48
- ☐ B. 36 ☐ D. 54
- 7) Elena categorizes her expenses as **needs** (housing, food) versus **wants** (entertainment, dining out). She earns \$600 monthly. If needs total 50% and wants total 30%, how much is allocated to other categories like savings?
- ☐ A. \$60 ☐ C. \$180
- ☐ B. \$300 ☐ D. \$120



8) Which value is equivalent to 2.5×10^{-3} ?

☐ A. 0.025

☐ C. 2,500

☐ B. 0.0025

☐ D. 25,000

9) One service charges \$150 for $\frac{2}{3}$ hour of work. Another charges \$140 for $\frac{3}{5}$ hour. Which charges less per hour?

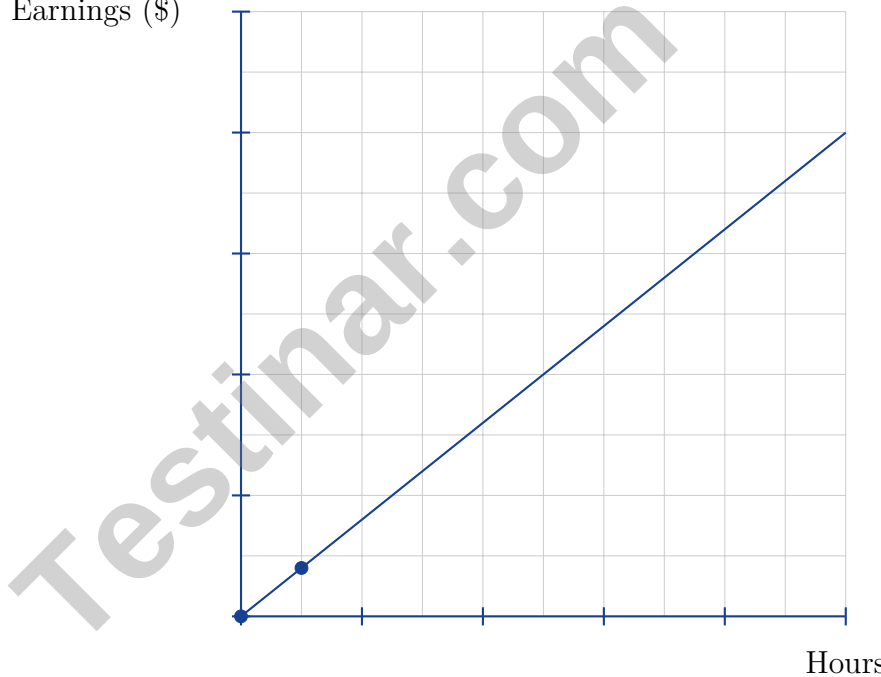
☐ A. They charge the same

☐ C. Second at \$225/hr

☐ B. Second at $\frac{700}{3} \approx 233.33$ \$/hr

☐ D. First at \$225/hr

Earnings (\$)



10)

A proportional graph shows earnings over hours, passing through the origin and the unit-rate point (1, 0.8). What is the hourly wage?

☐ A. \$10.00 per hour

☐ C. \$8.00 per hour

☐ B. \$1.00 per hour

☐ D. \$0.80 per hour



Scan me!
For more practice
& answers

- 1) A healthcare provider wants to estimate the average cholesterol level of all adults in a city. Surveying only patients at a heart disease clinic would introduce:
- ☐ A. Sampling error ☐ C. Measurement error
☐ B. Selection bias ☐ D. Response error
- 2) A health clinic surveyed 150 patients and found that 42 have high blood pressure. The clinic sees 500 patients per month. About how many have high blood pressure?
- ☐ A. 84 ☐ C. 140
☐ B. 112 ☐ D. 168
- 3) A toy costs \$20 at a store. The store adds an 8% sales tax. What is the final price?
- ☐ A. \$20.80 ☐ C. \$22
☐ B. \$28 ☐ D. \$21.60
- 4) A bike shop charges \$25 to rent a bike per day. Write the equation for total cost T as a function of days d .
- ☐ A. $d = 25T$ ☐ C. $T = \frac{25}{d}$
☐ B. $T = d + 25$ ☐ D. $T = 25d$
- 5) Simplify $\frac{1}{4}m + \frac{3}{4}m + 2n$, then evaluate when $m = 2$ and $n = 3$.



Scan me!
For more practice
& answers

- 6) A coin is flipped twice to simulate a compound event. How many outcomes involve “at least one heads”?
- ☐ A. 1 ☐ C. 3
☐ B. 2 ☐ D. 4
- 7) An online store charges \$9.99 per item plus a fixed shipping cost of \$5.99. If the total order is \$54.95, how many items were ordered? Which equation is correct?
- ☐ A. $5.99x + 9.99 = 54.95$ ☐ C. $9.99x + 5.99 = 54.95$
☐ B. $9.99 + 5.99x = 54.95$ ☐ D. $x(9.99 + 5.99) = 54.95$
- 8) Which inequality represents “a number decreased by 10 is less than or equal to 25”?
- ☐ A. $n - 10 \leq 25$ ☐ C. $10 - n \leq 25$
☐ B. $n - 25 \leq 10$ ☐ D. $n \leq 35$
- 9) A map scale is given as 2 in : 5 miles. If the actual distance between two points is 20 miles, what is the distance on the map?
- ☐ A. 4 in ☐ C. 8 in
☐ B. 6 in ☐ D. 10 in
- 10) A rectangular building is shown on a site plan as 7 inches by 11 inches at a scale of 1 in : 20 ft. Which statement correctly describes the actual building?
- ☐ A. The length is 140 ft and width is 220 ft ☐ C. The length is 35 ft and width is 55 ft
☐ B. The length is 220 ft and width is 140 ft ☐ D. The length is 55 ft and width is 35 ft



1) A student solved $-4x + 2 > 10$ and wrote $x > -2$. What error did the student make?

- ☐ A. Did not subtract 2 correctly ☐ C. The solution is actually correct
☐ B. Did not flip the inequality sign when dividing by -4 ☐ D. Should have added instead of subtracted

2) A skateboard costs \$85, and safety gear costs \$12 per item. Marcus buys a skateboard and 4 safety items. Which equation represents his total cost C ?

- ☐ A. $C = 85 + 4 + 12$ ☐ C. $C = 85 + 4(12)$
☐ B. $C = 4(85 + 12)$ ☐ D. $C = (85 + 12)(4)$

3) A model airplane has a scale of 1 in : 8 ft. The model is 12 inches long. How long is the actual airplane?

- ☐ A. 48 ft ☐ C. 96 ft
☐ B. 64 ft ☐ D. 108 ft

4) A pizza delivery service charges a proportional rate. The cost of 4 pizzas is \$52. What is the cost of 7 pizzas?

- ☐ A. \$13 ☐ C. \$91
☐ B. \$26 ☐ D. \$364

5) A student's score changes are shown. What is the final change?

Event	Points
Penalty	-1.5
Correct answer	$+3.2$
Time deduction	-0.8

- ☐ A. 5.5 ☐ C. 0.9
☐ B. 0.1 ☐ D. -0.1



Scan me!
For more practice
& answers

6) Divide $-2\frac{1}{2} \div (-\frac{5}{6})$.

☐ A. -3

☐ B. 3

☐ C. $\frac{5}{4}$

☐ D. $-\frac{5}{4}$

7) What is $\frac{7}{10}$ as a decimal?

☐ A. 0.07

☐ B. 0.17

☐ C. 0.7

☐ D. 0.77

8) A runner's time improves by 2.4 seconds each month for 3 months. What is the total improvement?

☐ A. 2.4 seconds

☐ B. 7.2 seconds

☐ C. 5.4 seconds

☐ D. 7.8 seconds

9) A charity collects \$150.50 on Monday, \$225.75 on Tuesday, and spends \$180.25 on supplies. How much is left?

☐ A. \$196.00

☐ B. \$405.75

☐ C. \$195.50

☐ D. \$195.00

10) Solve for x : $\frac{x}{2} - 1 = 4$



Iowa ISASP 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 Iowa ISASP practice test.



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.RP.1-7.RP.3) New dimensions are $12 \times \frac{1}{3} = 4$ cm and $8 \times \frac{1}{3} = \frac{8}{3}$ cm. Area = $4 \times \frac{8}{3} = \frac{32}{3} \approx 10.67$ cm². (Common error: using scale ($\frac{1}{3}$) instead of $(\frac{1}{3})^2 = \frac{1}{9}$ gives $96 \div 3 = 32$ cm².)
- 2) **Choice C is correct.** (7.NS.1-7.NS.3) $-7 - 4 = -7 + (-4) = -11$.
- 3) **Choice C is correct.** (7.RP.3) 18% of 500 is $0.18 \times 500 = 90$ items.
- 4) **Choice C is correct.** (7.SP.1-7.SP.4) 22% of 240 = $0.22 \times 240 = 52.8$ people.
- 5) **Choice D is correct.** (7.RP.1-7.RP.3) The line passes through (0,0) and (5,5), making it proportional with $k = 1$ or $y = x$.
- 6) **Choice D is correct.** (7.RP.3) Flowers: $\frac{25}{100} \times 72 = 18$. Vegetables: $72 - 18 = 54$.
- 7) **Choice D is correct.** (7.RP.3) Needs + Wants = $50\% + 30\% = 80\%$ of \$600 = \$480. Remaining for savings and other = $100\% - 80\% = 20\%$ of \$600 = \$120.
- 8) **Choice B is correct.** (7.NS.1-7.NS.3) $2.5 \times 10^{-3} = 2.5 \times 0.001 = 0.0025$. Move decimal 3 places left.
- 9) **Choice D is correct.** (7.RP.1-7.RP.3) First: $\frac{150}{2/3} = 150 \times \frac{3}{2} = 225$ \$/hr. Second: $\frac{140}{3/5} = 140 \times \frac{5}{3} = \frac{700}{3} \approx 233.33$ \$/hr. First is less.
- 10) **Choice D is correct.** (7.RP.1-7.RP.3) The unit-rate point (1,0.8) directly shows the hourly wage: \$0.80 per hour.
- 11) **Choice B is correct.** (7.NS.1-7.NS.3) Evaluate: A: $|-0.8| = 0.8$; B: $|-6| = 6$; C: $|-1.1| = 1.1$; D: $|1.3| = 1.3$. Greatest is B.
- 12) **Choice C is correct.** (7.NS.1-7.NS.3) $6 \div \frac{2}{3} = 6 \times \frac{3}{2} = 9$.
- 13) **Choice D is correct.** (7.NS.2d) Divide $23 \div 40 = 0.575$. Since $40 = 2^3 \times 5$, it terminates in three decimal places.
- 14) **Choice A is correct.** (7.NS.1-7.NS.3) $-1.75 \times 4 = -7.00$ dollars.
- 15) **Choice C is correct.** (7.NS.1-7.NS.3) Because $12 \times 12 = 144$, the square root of 144 is 12.
- 16) **Choice B is correct.** (7.NS.1-7.NS.3) Change = $-0.25 \times 4 = -1$ second. New time = $3.5 - 1 = 2.75$ seconds.
- 17) **The correct answer is \$720.** (7.RP.1-7.RP.3) Use $18 \times 40 = 720$ dollars.
- 18) **Choice C is correct.** (7.EE.1-7.EE.2) The distributive property says $3(2 + 0.5) = 3(2) + 3(0.5)$. Choice C shows this explicitly: we multiply 3 by each part separately ($3 \times 2 = 6$ cups, $3 \times 0.5 = 1.5$ cups), then add: $6 + 1.5 = 7.5$ cups. This form reveals how multiplication distributes across each ingredient measure.
- 19) **Choice D is correct.** (7.SP.5-7.SP.8) Rainy has probability $0.15 \neq 0$. It is the least likely, but not impossible. The others are correct.
- 20) **Choice D is correct.** (7.RP.3) Total haircut revenue = $25 \times 8 = \$200$. Commission = commission rate $\times$ sales = $0.40 \times 200 = \$80$.
- 21) **The correct answer is \$129.71.** (7.RP.3) Apply the 15% discount to get $140(0.85) = 119$. Then add 9% tax: $119(1.09) = 129.71$.
- 22) **The correct answer is A,C.** (7.SP.1-7.SP.4) Sample 1: $\frac{48}{200} = 0.24$; Sample 2: $\frac{36}{150} = 0.24$; Sample 3: $\frac{60}{250} = 0.24$. All are equal, so A is correct. These proportions can be used to estimate the full population (C). B is false (all equal), D is misleading, and E contradicts the actual data.
- 23) **Choice A is correct.** (7.NS.2) $(2 \times 3) \times (-5) = 6 \times (-5) = -30$. Positive times negative is negative.
- 24) **Choice A is correct.** (7.SP.3) Breed A's data clusters at 42–48 pounds with range 10 (40–50), making weight predictable. Breed B spreads from 30–60 pounds (range 30), making individual dog weights unpredictable.
- 25) **The correct answer is \$81.** (7.RP.3) $I = 600 \times 0.045 \times 3 = \81 .
- 26) **Choice D is correct.** (7.G.4-7.G.6) Each rectangle: $5 \times 3 = 15$ m². Three rectangles: $15 \times 3 = 45$ m².
- 27) **Choice C is correct.** (7.RP.1-7.RP.3) Set up proportion: $\frac{1}{25} = \frac{4.5}{x}$. Cross multiply: $x = 4.5 \times 25 = 112.5$ miles.
- 28) **Choice D is correct.** (7.RP.3) Savings allocation: $0.40 \times 4000 = \$1600$.
- 29) **The correct answer is 12%.** (7.RP.3) Percent error = $\frac{|110-125|}{125} \times 100\% = \frac{15}{125} \times 100\% = 12\%$.
- 30) **Choice A is correct.** (7.RP.3) After 1 year: $1500 \times 1.07 = 1605$. This equals the target amount.



Scan me!
For more practice
& answers

+ −

.....

87

.....

 $\times \div$

Testinar.com

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