

5

Texas STAAR

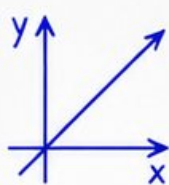
GRADE

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



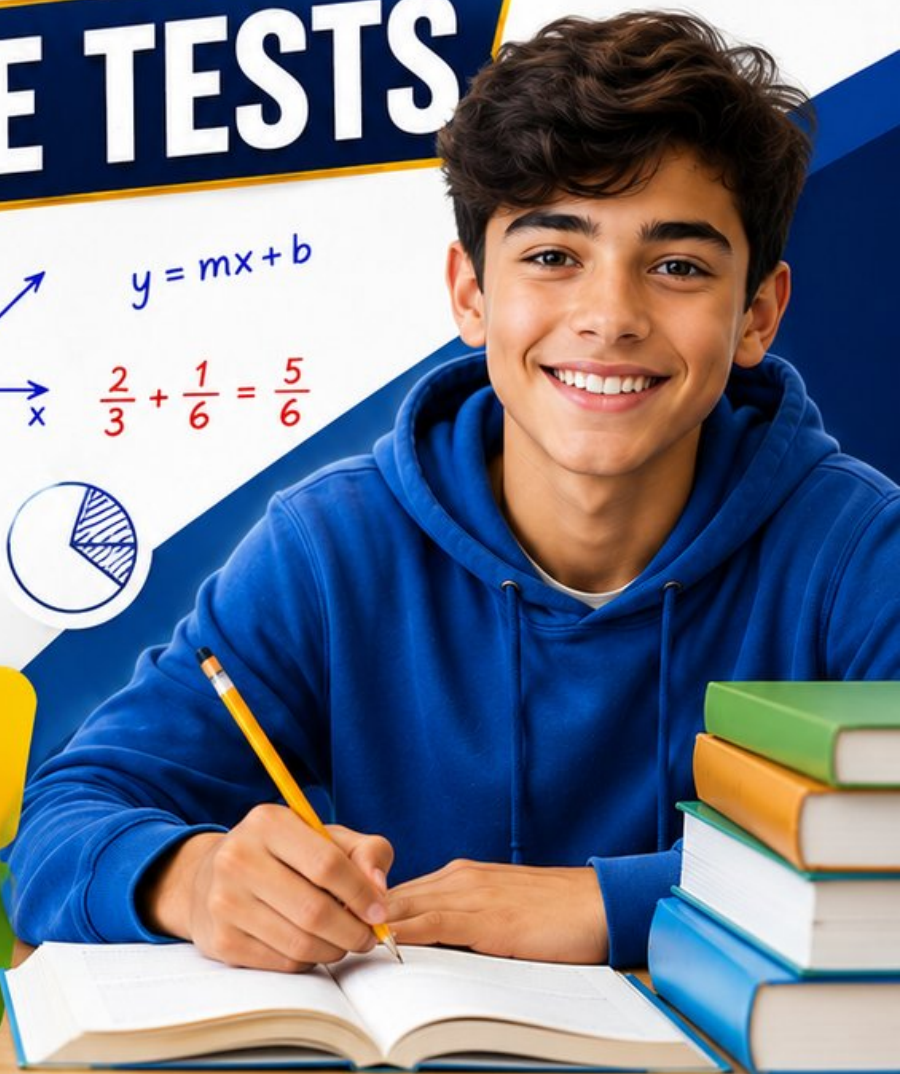
Strengthen
Math Skills



Detailed Answers
& Explanations

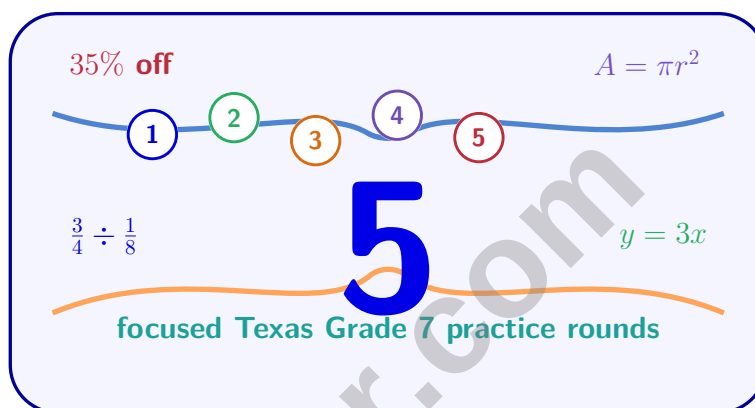


Improve Test
Performance



5 Texas STAAR Grade 7 Math Practice Tests

Grade 7 Review Rounds with Practice, Answers, and Worked Support



Five complete 40-question Grade 7 STAAR 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, Texas Grade 7 Problem Solver!

Five focused rounds for sharper STAAR math thinking

This book gives you five full Grade 7 STAAR 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 Texas 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.

Texas 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 STAAR 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

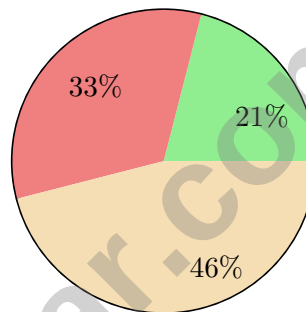
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1) A basketball player made 16 shots. This represents 80% of her attempts. How many shots did she attempt?

☐ A. 18☐ C. 22☐ B. 24☐ D. 20

2) Which is the simplest form of $5 - 9$?

☐ A. -4 ☐ C. 14☐ B. 4☐ D. -14 

3)

The circle graph shows movie rental sources for a town. Green is streaming (21%), red is rentals (33%), and tan is purchases (46%). If the town had 4500 movie transactions last month, how many were purchases?

☐ A. 945☐ C. 2070☐ B. 1485☐ D. 3015

4) An architect uses a scale of 1 inch = 15 feet for a floor plan. If a hallway is actually 45 feet long, what was the error if someone calculated it as 2 inches instead of the correct answer?

☐ A. No error; 2 inches is correct☐ D. Using the scale 15 : 1 instead of 1 : 15☐ B. Forgetting to convert units☐ C. Adding instead of multiplying

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& answers

5) A stock started the day at \$50. It fell \$12 and then rose \$8. What was its closing price?

☐ A. \$30☐ C. \$54☐ B. \$70☐ D. \$46

6) Evaluate $5 - 3(x - 2)$ when $x = 4$.

☐ A. -1☐ C. 5☐ B. -5☐ D. 11

7) A recipe scales proportionally. The base recipe uses $\frac{1}{3}$ cup sugar for every $\frac{2}{3}$ cup flour. What is the constant of proportionality (flour per sugar)?

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

8) When 6.75 is multiplied by a power of 10 to become 0.000675, what is the exponent?

☐ A. 10^{-2} ☐ C. 10^{-4} ☐ B. 10^{-3} ☐ D. 10^{-5}

9) The table shows distance and time. What is the constant of proportionality in miles per hour?

Time (h)	Distance (mi)
2	120
3	180
5	300

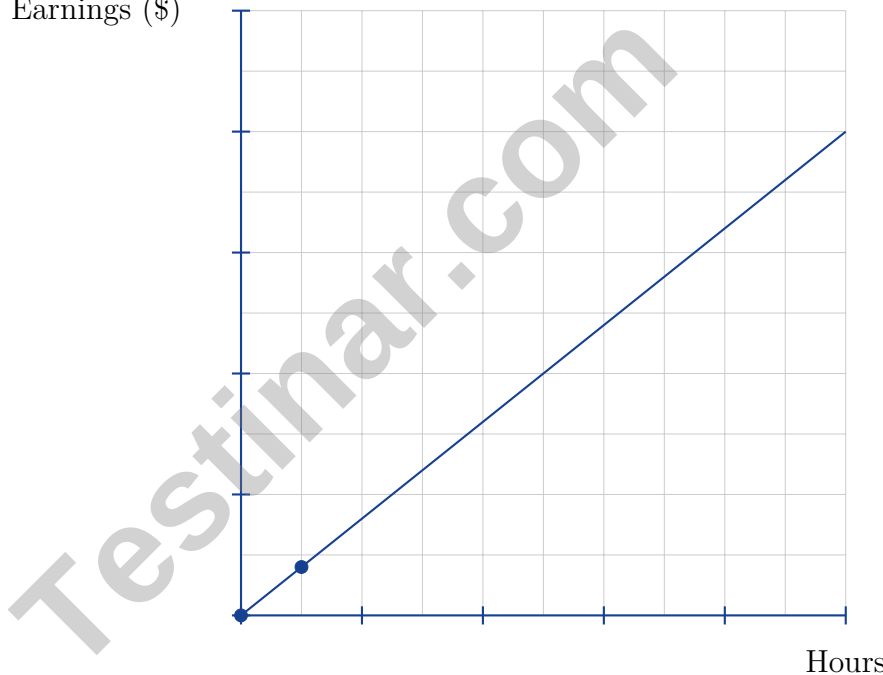


- 10) The table shows the relationship between pages read and time. Find the unit rate in pages per hour.

Pages	$\frac{1}{2}$	1	$1\frac{1}{2}$
Hours	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{2}$

- ☐ A. $\frac{1}{12}$ pages per hour ☐ C. 6 pages per hour
☐ B. $\frac{1}{3}$ pages per hour ☐ D. 3 pages per hour

Earnings (\$)



11)

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



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& answers

- 1) An online retailer increases prices by 10% one month, then by 5% the next month. A customer claims this is the same as a single 15% increase. Is the customer correct?
- ☐ A. Yes, successive percent increases add. ☐ C. No; $1.10 \times 1.05 = 1.155$, so the increase is 15.5%.
- ☐ B. No; the true increase is 14.5%. ☐ D. They are exactly the same.
- 2) A store applies a markup of \$50 to an item costing \$200. What is the percent markup?
- ☐ A. 20% ☐ C. 10%
- ☐ B. 50% ☐ D. 25%
- 3) A recipe uses 3 tablespoons of salt for 12 cups of water. If s is salt and w is water, what equation shows this proportional relationship?
- ☐ A. $s = 4w$ ☐ C. $s = \frac{w}{4}$
- ☐ B. $s = w + 9$ ☐ D. $s = \frac{1}{4}w$
- 4) The table shows the relationship between gallons of paint (g) and square feet painted (p).

Gallons	Square Feet
1	400
2	800

What is the value of k in the equation $p = kg$?

- ☐ A. 100 ☐ C. 200
- ☐ B. 800 ☐ D. 400



- 5) A rectangular prism has length 8 m, width 5 m, and height 2 m. Find the surface area.
- ☐ A. 80 m^2 ☐ C. 132 m^2
☐ B. 112 m^2 ☐ D. 176 m^2
- 6) A survey asks: “How many hours did you study for math?” This is a:
- ☐ A. Biased question ☐ C. Leading question
☐ B. Neutral question ☐ D. Voluntary response question
- 7) A spinner with 4 equal sections (Red, Blue, Green, Yellow) is spun twice to simulate a compound event. If “success” is defined as “the first spin is Red and the second spin is Blue,” how many outcomes in the sample space represent a success?
- ☐ A. 1 ☐ C. 4
☐ B. 2 ☐ D. 8
- 8) Solve for x : $3(x + 4) = 27$
- ☐ A. $x = 5$ ☐ C. $x = 9$
☐ B. $x = 7$ ☐ D. $x = 23$
- 9) Solve: $4x + 5 = 21$
- ☐ A. $x = 2$ ☐ C. $x = 6$
☐ B. $x = 4$ ☐ D. $x = 8$
- 10) A swimmer is currently 4 kg below their target weight. If they gain 0.5 kg per week, how many weeks w must pass to reach or exceed their target weight?
- ☐ A. $0.5w - 4 \geq 0$ ☐ C. $w \geq 8$
☐ B. $0.5w \geq 4$ ☐ D. $w \leq 8$



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& answers

1) What is $\sqrt{121}$?

☐ A. 10

☐ C. 12

☐ B. 11

☐ D. 13

2)

x	$x + 3$	$2(x + 3)$	$2(x + 3) - 5$
1	4	8	3
2	5	10	5
3	6	12	7

If $2(x + 3) - 5 = 11$, what is x ? Show steps and verify.

☐ A. $x = 3$

☐ C. $x = 7$

☐ B. $x = 5$

☐ D. $x = 9$

3) Solve: $\frac{x}{3} \geq 2$

☐ A. $x \geq \frac{2}{3}$

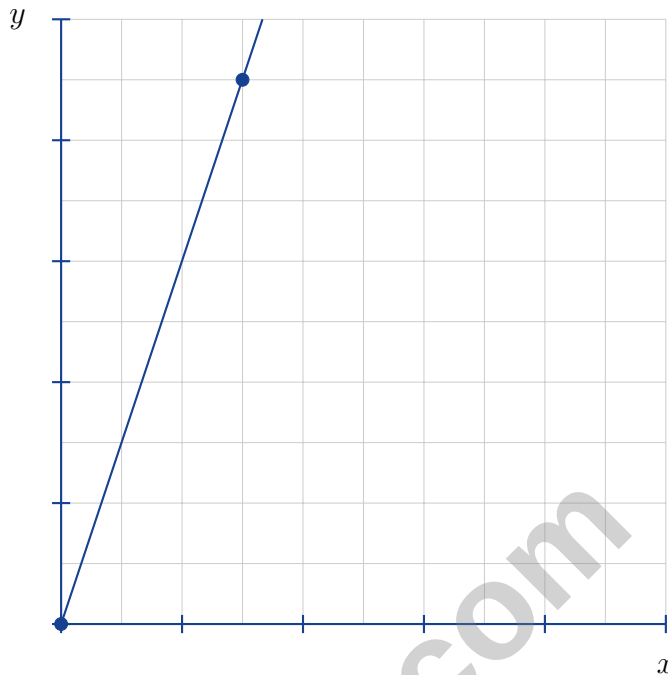
☐ C. $x \geq 6$

☐ B. $x \leq 6$

☐ D. $x \geq 2$



Scan me!
For more practice
& answers



4)

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

5) A person budgets \$4,000 monthly. Housing is 40%, food is 15%, utilities are 10%. The remainder is split equally between savings and discretionary. How much goes to discretionary spending?

☐ A. \$400☐ C. \$700☐ B. \$600☐ D. \$1,000

Texas STAAR 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 Texas STAAR practice test.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** (7.RP.3) If $16 = 0.80 \times a$, then $a = \frac{16}{0.80} = 20$ attempts.
- 2) **Choice A is correct.** (7.NS.1-7.NS.3) $5 - 9 = 5 + (-9) = -4$.
- 3) **Choice C is correct.** (7.SP.1-7.SP.4) $46\% \text{ of } 4500 = 0.46 \times 4500 = 2070$ transactions.
- 4) **Choice D is correct.** (7.RP.1-7.RP.3) Correct: $45 \div 15 = 3$ inches. If someone got 2 inches, they likely flipped the ratio: $45 \div (15 \times 2) \approx 1.5$ or used 15 in numerator.
- 5) **Choice D is correct.** (7.NS.1b) Model as $50 + (-12) + 8 = 50 - 12 + 8 = 46$. The stock fell \$12 then rose \$8 for a net change of $-\$4$.
- 6) **Choice A is correct.** (7.EE.1-7.EE.2) Substitute: $5 - 3(4 - 2) = 5 - 3(2) = 5 - 6 = -1$.
- 7) **Choice D is correct.** (7.RP.1-7.RP.3) Ratio: $\frac{\text{flour}}{\text{sugar}} = \frac{2/3}{1/3} = \frac{2}{3} \times \frac{3}{1} = 2$.
- 8) **Choice C is correct.** (7.NS.1-7.NS.3) $6.75 \times 10^{-4} = 6.75 \times 0.0001 = 0.000675$. The decimal moves 4 places left.
- 9) **The correct answer is 60.** (7.RP.1-7.RP.3) Each ratio gives the same unit rate: $120 \div 2 = 60$, $180 \div 3 = 60$, and $300 \div 5 = 60$.
- 10) **Choice D is correct.** (7.RP.1-7.RP.3) From the table, $\frac{1}{2}$ page in $\frac{1}{6}$ hour gives unit rate $\frac{1/2}{1/6} = \frac{1}{2} \times 6 = 3$ pages per hour.
- 11) **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.
- 12) **Choice D is correct.** (7.RP.3) Flowers: $\frac{25}{100} \times 72 = 18$. Vegetables: $72 - 18 = 54$.
- 13) **Choice C is correct.** (7.RP.3) Wants span from \$400 to \$1000, which is \$600 of \$2000 = $0.30 = 30\%$.
- 14) **Choice C is correct.** (7.NS.1-7.NS.3) Common denominator 6: $-\frac{4}{6} - \frac{5}{6} = -\frac{9}{6} = -\frac{3}{2} = -1\frac{1}{2}$.
- 15) **Choice B is correct.** (7.NS.1-7.NS.3) $\frac{1}{5} \div \frac{1}{3} = \frac{1}{5} \times \frac{3}{1} = \frac{3}{5}$.
- 16) **Choice C is correct.** (7.NS.2d) Divide $3 \div 11 = 0.272727\ldots = 0.\overline{27}$. The denominator 11 produces a repeating 2-digit block.
- 17) **Choice C is correct.** (7.NS.1-7.NS.3) Current temp (at mercury level) is -1°C . Drop of 2°C : $-1 - 2 = -3^\circ\text{C}$.
- 18) **The correct answer is A, C.** (7.RP.1-7.RP.3) From the table, $k = 14/2 = 7$, so A is true and the equation is $y = 7x$ (C is true). B is false: $k = 7$, not 2.8. D is false: when $x = 10$, $y = 7 \cdot 10 = 70$, not 68.
- 19) **Choice A is correct.** (7.NS.1-7.NS.3) Temperature change = $-0.3 \times 5 = -1.5^\circ\text{C}$. New temperature = $12 + (-1.5) = 10.5^\circ\text{C}$.
- 20) **Choice B is correct.** (7.NS.1-7.NS.3) The student made an error. The correct answer is $\sqrt{144} = 12$ because $12 \times 12 = 144$, not $11 \times 11 = 121$.
- 21) **Choice A is correct.** (7.EE.1-7.EE.2) $m + 0.08m = (1 + 0.08)m = 1.08m$. An 8% tax adds 8% to the original price.
- 22) **Choice B is correct.** (7.SP.5-7.SP.8) $P(\text{not blue}) = 1 - P(\text{blue}) = 1 - 0.3 = 0.7$.
- 23) **The correct answer is \$48.83.** (7.RP.3) Tax = $0.085 \times 45 = \$3.825 \approx \3.83 . Final price = $45 + 3.83 = \$48.83$.
- 24) **The correct answer is \$2500.** (7.RP.3) $500 = P \times 0.05 \times 4 \Rightarrow 500 = 0.2P \Rightarrow P = \2500 .
- 25) **Choice A is correct.** (7.NS.2) $\frac{3}{4} \times 8 = \frac{3 \times 8}{4} = \frac{24}{4} = 6$.
- 26) **The correct answer is 12%.** (7.RP.3) Percent error = $\frac{|110 - 125|}{125} \times 100\% = \frac{15}{125} \times 100\% = 12\%$.
- 27) **Choice D is correct.** (7.RP.3) If vendor keeps 80% of sales, then $0.80 \times \text{sales} = 2400$. Sales = $2400 \div 0.80 = \$3,000$.
- 28) **Choice D is correct.** (7.G.4-7.G.6) Decompose into a rectangle and a semicircle. Rectangle: $18 \times 10 = 180 \text{ in}^2$. Semicircle: $\frac{1}{2} \times 3.14 \times 5^2 = \frac{1}{2} \times 3.14 \times 25 = 39.25 \text{ in}^2$. Add: $180 + 39.25 = 219.25 \text{ in}^2$.
- 29) **Choice B is correct.** (7.SP.1-7.SP.4) Ordering leaves helps quickly locate the median and identify patterns in the data distribution.
- 30) **Choice C is correct.** (7.RP.1-7.RP.3) Gallons needed: $350 \div 28 = 12.5$ gallons. Total cost: $12.5 \times 3.20 = 40$ dollars.
- 31) **Choice A is correct.** (7.RP.3) $400(1 + r)^2 = 441 \Rightarrow (1 + r)^2 = 1.1025 \Rightarrow 1 + r = 1.05 \Rightarrow r = 5\%$.



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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