

6

WISCONSIN

Forward Exam

GRADE

7

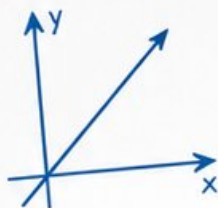
MATH

## PRACTICE TESTS



Standards Aligned  
**Problem Solving** For  
Comprehensive  
Assessment Programs

$$y = mx + b$$



$$2(x - 3) = 4x + 6$$

6 PRINTED TESTS



2 ONLINE TESTS



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



Build  
Confidence



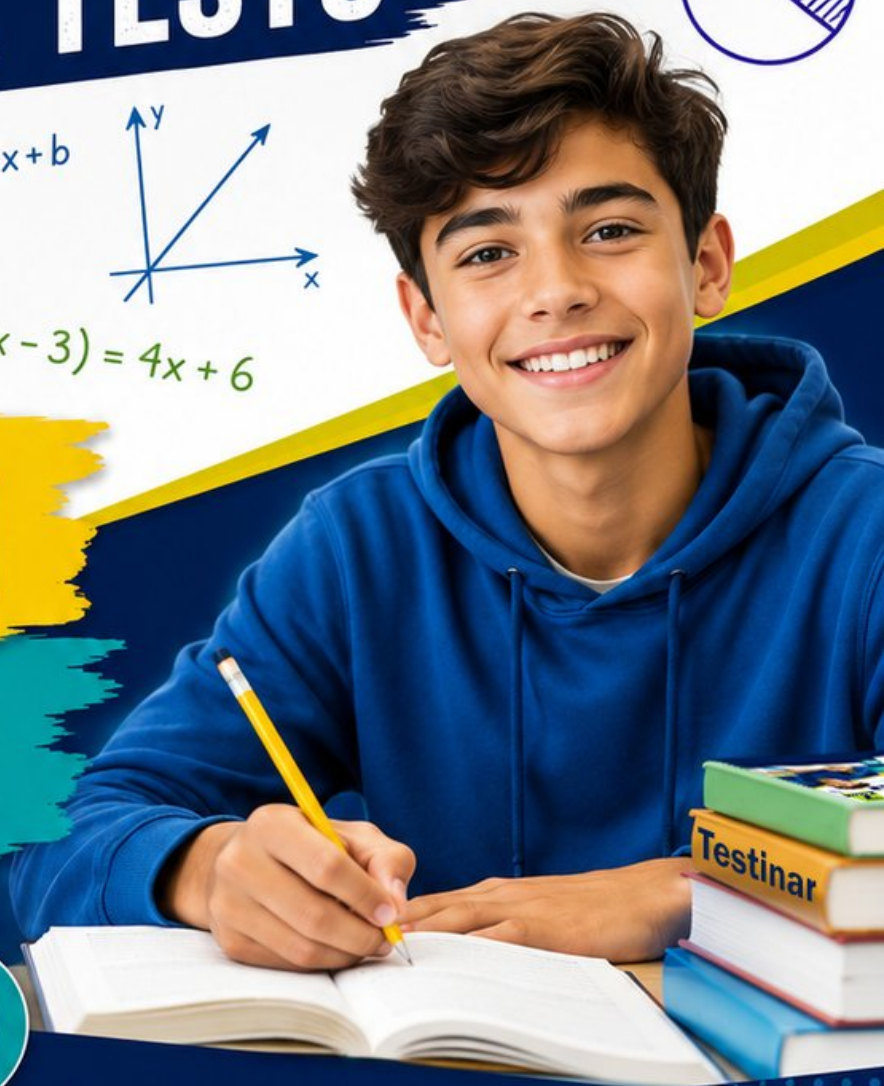
Strengthen  
Math Skills



Detailed Answers  
& Explanations

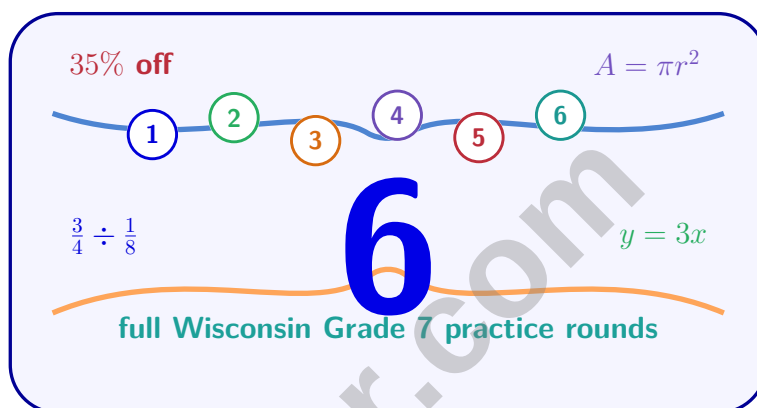


Improve Test  
Performance



# 6 Wisconsin Forward Exam Grade 7 Math Practice Tests

*Standards-Aligned Practice with Review, Answer Keys, and Explanations*



Six complete 40-question Grade 7 Forward Exam 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, Wisconsin Grade 7 Problem Solver!

Six focused rounds for sharper Forward Exam math thinking

This book gives you six full Grade 7 Forward Exam 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 Wisconsin 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 six-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.

**Wisconsin 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?

Six Forward Exam tests, 240 questions, and a complete review path

| Part         | What You Will Practice                                                                             |
|--------------|----------------------------------------------------------------------------------------------------|
| Tests 1–3    | Proportional relationships, unit rates, percents, rational-number operations, and careful reading. |
| Tests 4–6    | Expressions, equations, inequalities, scale drawings, geometry, 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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|    |                                     |          |
|----|-------------------------------------|----------|
|    | \$1200                              | ?        |
|    | Principal                           | Interest |
| 1) | Principal: \$1200 at 3% for 2 years |          |

What is the amount of interest earned?

- ☐ A. \$36                      ☐ C. \$60  
☐ B. \$48                      ☐ D. \$72
- 2) A mason lays  $\frac{3}{4}$  of a patio using  $\frac{1}{2}$  ton of bricks. How many tons are needed for the entire patio?
- ☐ A.  $\frac{1}{2}$  ton                      ☐ C.  $\frac{1}{3}$  ton  
☐ B.  $\frac{3}{8}$  ton                      ☐ D.  $\frac{2}{3}$  ton
- 3) Solve for  $x$ :  $2(x + 6) = 20$
- ☐ A.  $x = 2$                       ☐ C.  $x = 6$   
☐ B.  $x = 4$                       ☐ D.  $x = 8$
- 4) Two sides of a triangle are both 10 m. The third side is at least 2 m but at most 19 m. Which is a VALID third side?
- ☐ A. 1 m                      ☐ C. 15 m  
☐ B. 20 m                      ☐ D. 21 m
- 5) A square has vertices at  $(0, 0)$ ,  $(2, 0)$ ,  $(2, 2)$ , and  $(0, 2)$ . If the square is reflected over the line  $y = -x$ , what is the  $x$ -coordinate of the image of the vertex originally at  $(2, 0)$ ?



- 6) A water tank in the shape of a cylinder has a radius of 4 feet and a height of 10 feet. Find the volume. Use  $\pi \approx 3.14$ .

☐ A. 125.6 ft<sup>3</sup> ☐ C. 502.4 ft<sup>3</sup>  
☐ B. 251.2 ft<sup>3</sup> ☐ D. 1004.8 ft<sup>3</sup>

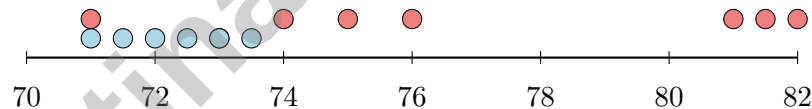
- 7) A polling company uses a phone directory to call residents and ask about voting intentions. What bias might this method have?

☐ A. Neither; it is a random sample ☐ C. Only calls during evening hours  
☐ B. Excludes people with unlisted phone numbers and cell-phone-only users ☐ D. Leads respondents to lie about their voting plans

- 8) The dot plots below show the daily temperatures (in °F) for two months:

Month 2:

Month 1:



Which month is more consistent in temperature?

☐ A. Month 1 (tighter cluster) ☐ C. Both have equal consistency  
☐ B. Month 2 (wider spread) ☐ D. Cannot tell from dot plots

- 9) A back-to-back stem-and-leaf plot compares the heights of two basketball teams. The stem represents tens of inches. For Team A, stem 7 has leaves 0, 2, 4, 6 (on the left). For Team B, stem 7 has leaves 1, 3, 5, 8 (on the right). How many players are in the 70–79 inch range in total?

☐ A. 4 players ☐ C. 12 players  
☐ B. 8 players ☐ D. 16 players



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& answers

- 10) A bag contains 6 white socks and 4 black socks. A sock is drawn at random. What is the probability of drawing a white sock?

☐ A.  $\frac{3}{5}$   
☐ B.  $\frac{2}{5}$

☐ C.  $\frac{1}{2}$   
☐ D.  $\frac{4}{6}$

- 11) A two-way table shows outcomes for tossing a coin and rolling a die showing 1, 2, or 3. What is the total number of outcomes?

|   | 1  | 2  | 3  |
|---|----|----|----|
| H | H1 | H2 | H3 |
| T | T1 | T2 | T3 |

☐ A. 2 outcomes  
☐ B. 3 outcomes

☐ C. 5 outcomes  
☐ D. 6 outcomes

- 12) A photograph is enlarged from 4 inches wide by 6 inches tall to 10 inches wide. How tall is the enlarged photograph?

- 13) Two box plots show the test scores of Class A (median = 82, range = 30) and Class B (median = 78, range = 14). The box plot for Class A spans from 67 to 97; Class B spans from 71 to 85. Which statement is best supported by the visuals?

☐ A. Class A and Class B score ranges overlap from 71 to 85  
☐ B. Class A's scores varied more and its typical score was higher  
☐ C. Class B is always worse regardless of median  
☐ D. Class A has higher minimum but Class B more consistent



- 1) A dot plot shows quiz scores: 70 (one student), 75 (two students), 80 (four students), 85 (two students), 90 (one student). Which statement is correct?
- ☐ A. The median is 70                      ☐ C. The median is 85  
☐ B. The median is 80                      ☐ D. The median is 90
- 2) Convert  $\frac{3}{4}$  to a percent.
- ☐ A. 34%                                      ☐ C. 65%  
☐ B. 43%                                      ☐ D. 75%
- 3) To simulate the compound event of flipping a coin and rolling a die, how many equally likely outcomes should be in the sample space?
- ☐ A. 6                                              ☐ C. 12  
☐ B. 8                                              ☐ D. 18
- 4) A spinner has 5 equal sections numbered 1 through 5. You spin twice. What is the probability of NOT spinning a 1 on either spin?
- ☐ A.  $\frac{2}{5}$                                               ☐ C.  $\frac{16}{25}$   
☐ B.  $\frac{8}{25}$                                               ☐ D.  $\frac{1}{25}$
- 5) An accountant estimated revenues of \$250,000 but actual revenues were \$280,000. What is the percent error?
- ☐ A. 10.7%                                      ☐ C. 30%  
☐ B. 12%                                              ☐ D. 89.3%



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6) Expand and simplify:  $2(4p - 3) - 1$

☐ A.  $6p - 7$

☐ C.  $8p - 7$

☐ B.  $8p - 3$

☐ D.  $8p - 6$

7) Sofia opens a savings account with \$400 at a simple interest rate of 2.5% per year. What will be the total amount in her account after 4 years?

☐ A. \$410

☐ C. \$430

☐ B. \$500

☐ D. \$440

8) A soccer field is 100 yards long. On a scale drawing where  $\frac{1}{2}$  inch = 10 yards, how long is the field on the drawing?

☐ A. 2 inches

☐ C. 20 inches

☐ B. 10 inches

☐ D. 5 inches

9) 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

10) Sophia had \$28 in her wallet. She spent \$35 on lunch. Write her account balance as an integer (assuming the wallet could go negative). What is her balance?

☐ A. \$ - 63

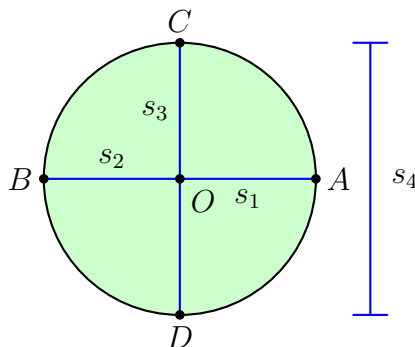
☐ C. \$7

☐ B. \$63

☐ D. \$ - 7



1) In the circle below, identify which labeled segment is NOT a radius.

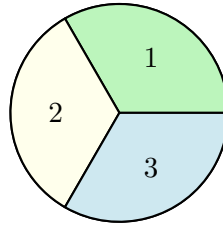
☐ A.  $s_1$ ☐ C.  $s_3$ ☐ B.  $s_2$ ☐ D.  $s_4$ 

2) Point  $K(-4, 3)$  is reflected over the  $x$ -axis. What is the image?

☐ A.  $(4, 3)$ ☐ C.  $(3, -4)$ ☐ B.  $(-4, -3)$ ☐ D.  $(-3, 4)$ 

3) Two similar triangles have a scale factor of  $1 : 3$ . The smaller triangle has a side of 5 cm. What is the length of the corresponding side in the larger triangle?

☐ A. 5 cm☐ C. 15 cm☐ B. 10 cm☐ D. 35 cm



4)

A spinner is divided into 3 equal sections labeled 1, 2, 3. What is the probability of spinning a 2 or a 3?

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

- ☐ C.  $\frac{1}{2}$   
☐ D.  $\frac{3}{4}$

5) A spinner is divided into 3 equal sections (Red, Blue, Yellow), and a fair coin is flipped. How many total outcomes are possible?

- ☐ A. 3  
☐ B. 5

- ☐ C. 6  
☐ D. 9

6) What is  $0.4 \times 0.5$ ?

- ☐ A. 0.2  
☐ B. 0.9

- ☐ C. 1.8  
☐ D. 2

7) A floor tile is a perfect square with an area of 16 square cm. What is the side length?

- ☐ A. 3 cm  
☐ B. 4 cm

- ☐ C. 5 cm  
☐ D. 6 cm



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For more practice  
& answers

## Wisconsin Forward Exam 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 Wisconsin Forward Exam 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)  $I = 1200 \times 0.03 \times 2 = \$72$ .
- 2) **Choice D is correct.** (7.RP.1-7.RP.3) If  $\frac{3}{4}$  patio uses  $\frac{1}{2}$  ton, then 1 full patio uses  $\frac{1/2}{3/4} = \frac{1}{2} \times \frac{4}{3} = \frac{2}{3}$  ton.
- 3) **Choice B is correct.** (7.EE.4a) Distribute:  $2x + 12 = 20$ . Subtract 12:  $2x = 8$ . Divide by 2:  $x = 4$ . (Distractor A: dividing only the right side; Distractor C: forgetting to divide by 2; Distractor D: arithmetic error in final step.)
- 4) **Choice C is correct.** (7.G.1-7.G.5) For a triangle with two sides of 10 m:  $|10 - 10| < c < 10 + 10$  gives  $0 < c < 20$ . Only 15 m satisfies this range.
- 5) **The correct answer is 0.** (7.G.1-7.G.5) Reflection over  $y = -x$  uses the rule  $(x, y) \rightarrow (-y, -x)$ . Applying this to  $(2, 0)$ :  $(2, 0) \rightarrow (-0, -2) = (0, -2)$ . The  $x$ -coordinate of the image is 0.
- 6) **Choice C is correct.** (7.G.4-7.G.6)  $V = \pi r^2 h \approx 3.14 \times 4^2 \times 10 = 3.14 \times 16 \times 10 = 502.4 \text{ ft}^3$ .
- 7) **Choice B is correct.** (7.SP.1-7.SP.4) Phone directories only include people with listed landline numbers, which excludes people with unlisted numbers and younger voters who use only cell phones. This coverage bias makes the sample unrepresentative of all voters in the area.
- 8) **Choice A is correct.** (7.SP.1-7.SP.4) Month 1's dots cluster around  $71\text{--}73^\circ\text{F}$  ( $x$ -coordinates 1–3.5 map to  $70\text{--}75^\circ\text{F}$ ), a narrow range of  $2^\circ\text{F}$ . Month 2's dots span from 71 to  $82^\circ\text{F}$  ( $x$ -coordinates 1–12, range  $\approx 11^\circ\text{F}$ ). Month 1 is more consistent.
- 9) **Choice B is correct.** (7.SP.1-7.SP.4) Team A has 4 players (70, 72, 74, 76). Team B has 4 players (71, 73, 75, 78). Total =  $4 + 4 = 8$ .
- 10) **Choice A is correct.** (7.SP.5-7.SP.8) Total socks =  $6 + 4 = 10$ .  $P(\text{white}) = \frac{6}{10} = \frac{3}{5}$ .
- 11) **Choice D is correct.** (7.SP.5-7.SP.8) The table has 2 rows (H, T) and 3 columns (1, 2, 3). Total:  $2 \times 3 = 6$  outcomes.
- 12) **The correct answer is 15.** (7.G.1-7.G.5) Scale factor =  $\frac{10}{4} = 2.5$ . New height =  $6 \times 2.5 = 15$  inches.
- 13) **Choice B is correct.** (7.SP.3) Class A's range of 30 ( $67\text{--}97$ ) is larger than Class B's range of 14 ( $71\text{--}85$ ), showing greater variability. Class A's median (82) is higher than Class B's (78). Despite overlap at  $71\text{--}85$ , Class A is higher and more variable overall.
- 14) **Choice C is correct.** (7.SP.5-7.SP.8) For independent events:  $P(A \text{ or } B) = P(A) + P(B) - P(A) \cdot P(B) = \frac{1}{2} + \frac{1}{3} - \frac{1}{6} = \frac{5}{6}$ .
- 15) **Choice C is correct.** (7.SP.6) Relative frequency from observed data:  $\frac{120}{400} = 0.30$ . Use this to predict outcomes in a larger sample:  $0.30 \times 2000 = 600$  spins yield yellow.
- 16) **Choice C is correct.** (7.SP.5-7.SP.8)  $\frac{1}{4} = 0.25 = 25\%$ .
- 17) **Choice D is correct.** (7.RP.3) Percent error =  $\frac{|240 - 200|}{200} \times 100\% = \frac{40}{200} \times 100\% = 20\%$ .
- 18) **Choice B is correct.** (7.EE.1-7.EE.2) First add the markup:  $(c + 5)$ . Then multiply by 3:  $3(c + 5) = 3c + 15$ . Distribute to both terms.
- 19) **The correct answer is 16 m.** (7.G.4-7.G.6)  $C = \pi d \Rightarrow 50.24 = 3.14d \Rightarrow d = 50.24 \div 3.14 = 16 \text{ m}$ .
- 20) **Choice D is correct.** (7.RP.1-7.RP.3) Using scale 1 cm = 2.5 m:  $6 \times 2.5 = 15 \text{ m}$  long;  $4 \times 2.5 = 10 \text{ m}$  wide.
- 21) **Choice C is correct.** (7.RP.3) Promotion 1:  $200 \times 1.25 = \$250$ , then  $250 \times 0.85 = \$212.50$ . Promotion 2:  $200 \times 0.85 = \$170$ , then  $170 \times 1.25 = \$212.50$ . Multiplication is commutative.
- 22) **The correct answer is B,C.** (7.G.1-7.G.5) B and C are equivalent and correct: two angles are equal ( $50^\circ$  each), so by the Isosceles Triangle Theorem, the sides opposite those angles must be equal. A is wrong (equilateral requires all angles  $60^\circ$ ). D is wrong (two angles are the same).
- 23) **Choice D is correct.** (7.NS.1b) Check each: A:  $8 + (-3) = 5$ . B:  $2 + (-7) = -5$  ✓. C:  $-1 + 6 = 5$ . D:  $-9 + 3 = -6$ . Only B equals  $-5$ .
- 24) **Choice A is correct.** (7.NS.1-7.NS.3)  $0 - (-9) = 0 + 9 = 9$ . The opposite of  $-9$  is 9.
- 25) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 4 and 8 is 4. Factor:  $4x + 8y = 4(x + 2y)$ .
- 26) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute:  $2(5 - 3) + 5 = 2(2) + 5 = 4 + 5 = 9$ .
- 27) **The correct answer is 153.86.** (7.G.4-7.G.6)  $A = 3.14 \times 7^2 = 3.14 \times 49 = 153.86 \text{ cm}^2$ .
- 28) **Choice C is correct.** (7.EE.1) Combine:  $\frac{1}{2}a + \frac{1}{4}a = \frac{2}{4}a + \frac{1}{4}a = \frac{3}{4}a$ .



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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 6 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](mailto:jay@testinar.com).

**Jay Daie**

Your Persistence Coach

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **6** 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:

**6** 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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