

10

Rhode Island RICAS

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



10 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



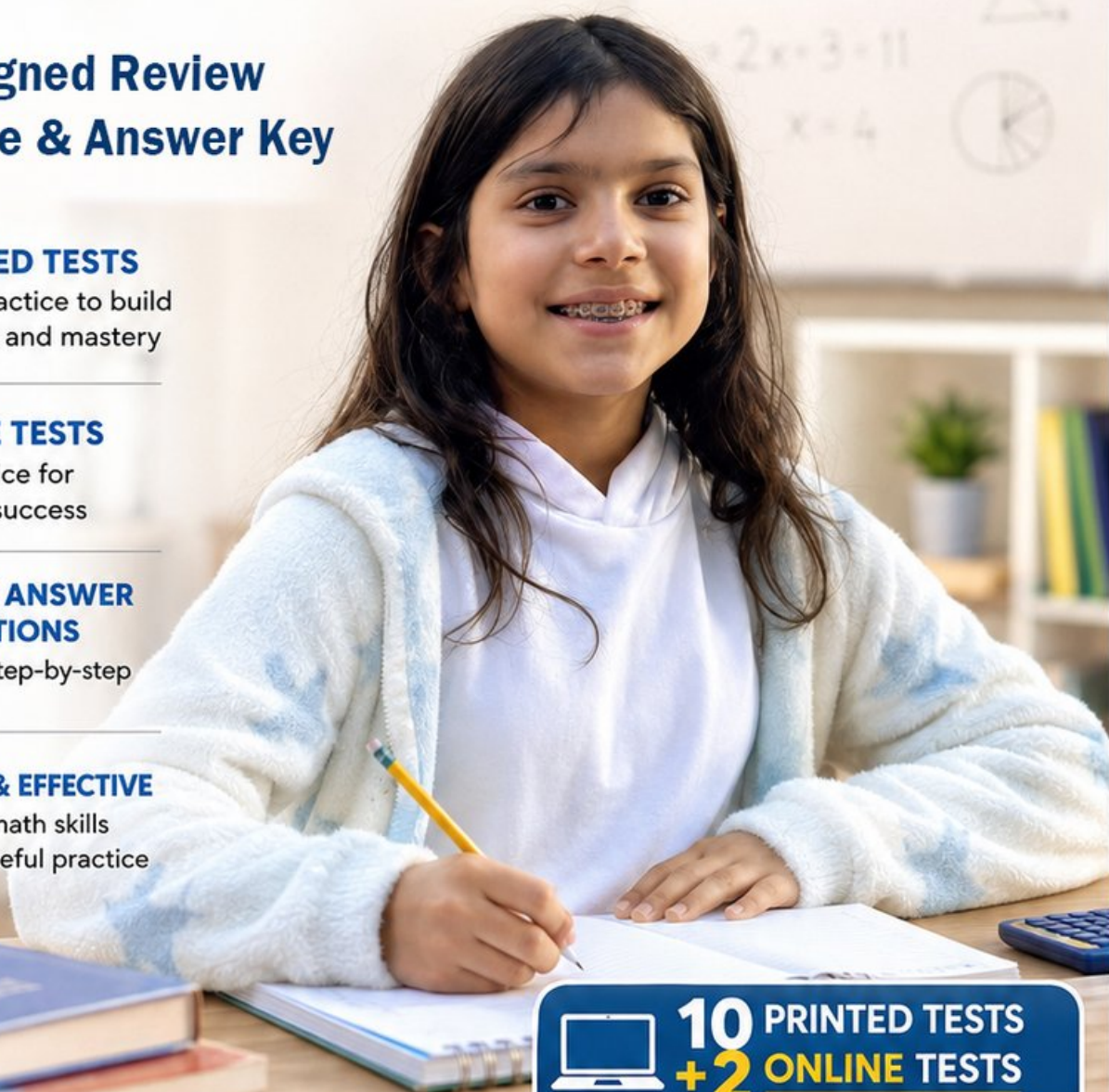
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



10 PRINTED TESTS
+ 2 ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

PRACTICE • REVIEW • SUCCEED

10 Rhode Island RICAS Grade 6 Math Practice Tests

Standards-Aligned Focused Small-Step Reasoning for Rhode Island Comprehensive Assessment System

$436 + 289$ $A = 24$

1 2 3 4 5 6 7 8 9 10

7×8 **10** $\frac{5}{6}$

complete Rhode Island practice rounds

Ten complete 40-question Grade 6 practice rounds for RICAS, with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Rhode Island Math Explorer!

Ten steady rounds on an Ocean State math loop

This book gives you ten full Grade 6 practice tests for RICAS. Each round uses coastal paths, harbor turns, and compact review steps as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Rhode Island Practice Promise

Use small, exact steps so no detail gets washed away. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

How to Use This Book

A ten-session routine for focused small-step reasoning

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

Rhode Island review rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



What Is Inside?

Ten RICAS tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Rhode Island round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Focused small-step reasoning means recognizing the skill even when the next question changes topic.



Scan me!
For more practice
& answers

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1) A trapezoid has bases of 20 m and 8 m with a height of 6 m. What is the area?

- A. 28 m^2
 C. 84 m^2
 B. 56 m^2
 D. 168 m^2

2) A science teacher is comparing two chemical solutions. Solution A has a mass of 50 grams and Solution B has a mass of 75 grams. The volumes are 10 mL and 15 mL respectively. Which solution shows a proportional mass-to-volume relationship?

Solution	Mass (g)	Volume (mL)
A	50	10
B	75	15

- A. Only Solution A has a ratio of 5 : 1
 C. Both have the same proportional ratio of 5 : 1
 B. Only Solution B has a ratio of 5 : 1
 D. Neither; the ratios are different
- 3) A recipe uses a scale where 1 inch on a diagram represents 2 inches of actual ingredient. If the actual length of an ingredient is 18 inches, what length is shown in the diagram?

- A. 6 inches
 C. 18 inches
 B. 9 inches
 D. 36 inches



4)

The bar model shows wheat and coral sections. If the total bar represents 15 units, and the ratio is 2 : 1, how many units are in the wheat section?

- A. 5 units
 C. 7.5 units
 B. 3 units
 D. 10 units



8) A stem-and-leaf plot shows daily temperatures (in °F) recorded during winter:

Stem	Leaf
3	2, 5, 9
4	1, 4, 6, 8
5	0, 3, 7

How many temperatures are recorded?

- A. 7 C. 10
 B. 8 D. 11

9) A student claims: "If the ratio of apples to oranges is 7 : 3, then the ratio of oranges to apples must be 3 : 7."

Is this claim correct?

- A. No, the ratio cannot be reversed. D. Yes, when the order is reversed, the parts of the ratio are reversed in the same way.
 B. No, the order does not matter, so both must be 7 : 3.
 C. No, the ratio of oranges to apples should be 7 : 3 as well.

10)

Cups of Juice	1	2	3	4
Cost (\$)	2.50	5.00	7.50	10.00

What is the unit rate in dollars per cup?

- A. \$1.50 per cup C. \$2.50 per cup
 B. \$2.00 per cup D. \$5.00 per cup



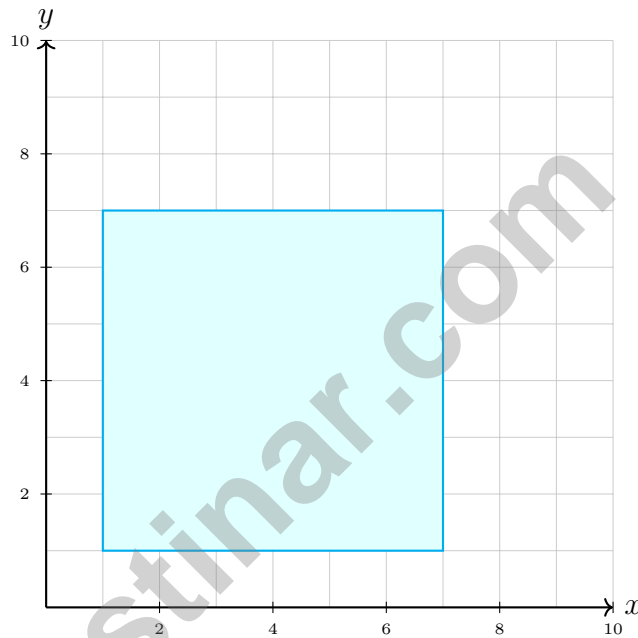
1) A soccer team wins 12 games and loses 4 games. In simplest form, what is the ratio of wins to total games?

A. 4 : 3

C. 3 : 1

B. 12 : 16

D. 3 : 4



2)

A rectangle on the coordinate plane has vertices at $(1, 1)$, $(7, 1)$, $(7, 7)$, and $(1, 7)$. What is its area?

A. 24 square units

C. 36 square units

B. 30 square units

D. 42 square units



- 3) A baker uses 2 cups of sugar per cake. How many cups are used for 7 cakes?

- 4) Find the area of a triangle with base 25 feet and height 8 feet.

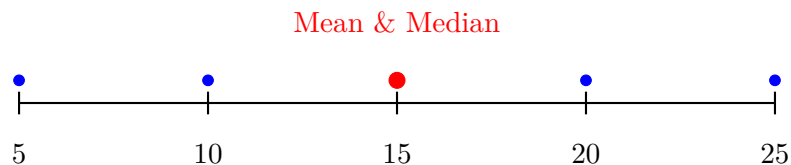
- 5) A triangular prism has a triangular base with area 12 cm^2 and a perimeter of 18 cm. The height of the prism is 5 cm. What is the lateral surface area (the area of the three rectangular faces)?

- A. 60 cm^2 C. 120 cm^2
 B. 90 cm^2 D. 132 cm^2

- 6) A circular tabletop has a radius of 2 feet. What is its approximate area using $\pi \approx 3.14$?

- A. 6.28 ft^2 C. 25.12 ft^2
 B. 50.24 ft^2 D. 12.56 ft^2

- 7) Find the mean of the 5 values shown. Which also equals the median?



- A. 10 C. 20
 B. 25 D. 15



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1) A person's income is budgeted as: 45% essential expenses, 30% savings, 20% wants, and 5% other. Which allocation category receives the least money?

- A. Essential expenses C. Wants
 B. Savings D. Other

2) If 3 notebooks cost \$9, how much will 7 notebooks cost?

- A. \$18 C. \$21
 B. \$20 D. \$27

3) A road sign shows the next rest stop is 3 kilometers away. How many meters away is the rest stop?

- A. 300 meters C. 30,000 meters
 B. 0.3 meters D. 3,000 meters

4) A company sells 480 products in one month. If 25% of the sales were online, how many products were sold online?

5) A student's monthly allowance is \$200. She wants to allocate money to savings, entertainment, and snacks in the ratio 3 : 2 : 1. How much should she allocate to savings?

- A. \$50 C. \$100
 B. \$75 D. \$120

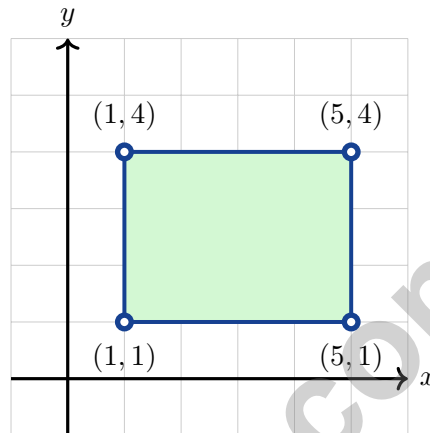


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& answers

6) What is $2 \div \frac{2}{5}$?

- A. 5
 B. $\frac{2}{10}$

- C. $\frac{4}{5}$
 D. $\frac{5}{2}$



7)

A rectangle has vertices at $(1, 1)$, $(5, 1)$, $(5, 4)$, and $(1, 4)$. What is the perimeter?

8) A recipe calls for 3.5 cups of flour. If you are making double the recipe, how much flour do you need?

- A. 1.75 cups
 B. 5.5 cups

- C. 7 cups
 D. 7.5 cups



Rhode Island RICAS Practice Test Answer Keys

How to use this section with a Grade 6 student:

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

A calm correction routine turns every missed item into useful practice.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice C is correct.** (6.EE.B.5) Area = $\frac{1}{2}(20 + 8) \times 6 = \frac{1}{2}(28)(6) = 84 \text{ m}^2$.
- Choice C is correct.** (6.SP.A.2) Solution A: mass/volume = $50/10 = 5$. Solution B: mass/volume = $75/15 = 5$. Both solutions have the same constant ratio of 5 grams per mL.
- Choice B is correct.** (6.SP.A.2) To find the diagram length, divide the actual length by the scale factor: $18 \div 2 = 9$ inches.
- Choice D is correct.** (6.SP.B.4) The whole bar has $2 + 1 = 3$ equal ratio parts. Each part is $15 \div 3 = 5$ units, and wheat is 2 parts: $2 \times 5 = 10$ units.
- Choice D is correct.** (6.NS.B.3) Food and utilities: $25\% + 20\% = 45\%$ of $\$2000 = 0.45 \times 2000 = \900 .
- Choice B is correct.** (6.NS.B.3) This is a GCF problem. Since $52 = 2 \times 26$ and $78 = 3 \times 26$, the greatest common factor is 26. They can make 26 shelves with 2 fiction books and 3 non-fiction books on each shelf.
- Choice A is correct.** (6.EE.A.3) A circle has 100%. Divide by 5: $100 \div 5 = 20\%$ per section.
- Choice C is correct.** (6.EE.B.8) Count all leaves: $3 + 4 + 3 = 10$ data points.
- Choice D is correct.** (6.EE.C.9) Yes. If apples to oranges is $7 : 3$, then reversing the order to oranges to apples also reverses the numbers, giving $3 : 7$.
- Choice C is correct.** (6.G.A.1) Divide cost by cups: $2.50 \div 1 = 2.50$ dollars per cup.
- Choice D is correct.** (6.SP.B.4) $12 \div \frac{5}{2} = 12 \times \frac{2}{5} = \frac{24}{5} = 4.8$ miles per hour.
- Choice C is correct.** (6.SP.B.5) The ratio is $2 : 5$. When sweaters are 10 (multiply by 5), t-shirts are $5 \times 5 = 25$.
- The correct answer is 24.** (6.NS.C.7) Width: $8 - 2 = 6$ units. Height: $6 - 2 = 4$ units. Area = $6 \times 4 = 24$ square units.
- Choice A is correct.** (6.RP.A.3) A proportional relationship with unit rate 3 means $y = 3x$. Option A has points (1, 3), (2, 6), (3, 9), which satisfy $y = 3x$. The other options do not have this constant ratio.
- Choice B is correct.** (6.EE.A.1) Since the total is 100, the percent equals the number: 23 out of 100 = 23%.
- The correct answer is 360.** (6.EE.A.4) Base area = $10^2 = 100 \text{ cm}^2$. Lateral area = $4 \times \frac{1}{2}(10)(13) = 260 \text{ cm}^2$. Total $SA = 100 + 260 = 360 \text{ cm}^2$.
- Choice C is correct.** (6.SP.A.3) 25% of $\$40$ is $0.25 \times 40 = \$10$. Sale price is $\$40 - \$10 = \$30$.
- The correct answer is Rectangles and triangles are polygons.** (6.EE.A.3) A is correct: a rectangle with vertices (0, 0), (4, 0), (4, 3), (0, 3) is a polygon on the coordinate plane. B is correct: a triangle with vertices (1, 2), (5, 2), and (3, 6) is a polygon. C, D, and E are incorrect because circles, curves, and ellipses are not polygons—polygons must have only straight sides.
- Choice D is correct.** (6.NS.C.8) Unit rate: $120 \div 3 = 40$ pages per minute. In 10 minutes: $40 \times 10 = 400$ pages.
- Choice A is correct.** (6.EE.B.6) Multiply: $3 \times 1000 = 3000$ meters.
- Choice D is correct.** (6.G.A.1) Unit rate: $\frac{\$3.60}{6} = \0.60 per can.
- Choice B is correct.** (6.G.A.2) $\frac{6}{7} \times \frac{3}{2} = \frac{18}{14} = \frac{9}{7}$.
- Choice A is correct.** (6.G.A.3) $4,752 \div 24 = 198$. Check: $24 \times 198 = 4,752$.
- Choice B is correct.** (6.G.A.1) Add: $0.75 + 1.40 + 2.10 = 4.25$. Align all decimal points first.
- Choice A is correct.** (6.G.A.4) Distributive property: $11(2 + 5) = 11 \cdot 2 + 11 \cdot 5 = 22 + 55 = 77$. Choice A shows the expanded form before combining.
- Choice C is correct.** (6.RP.A.3) The vertical distance is the difference: $150 - (-45) = 150 + 45 = 195$ feet.
- Choice D is correct.** (6.SP.A.2) The opposite of -5 is 5. The opposite of 5 is -5 . So the opposite of the opposite returns to the original number.
- Choice B is correct.** (6.NS.A.1) Absolute values: $|-2.3| = 2.3$, $|-4.1| = 4.1$, $|3.9| = 3.9$, $|1.8| = 1.8$. The greatest is 4.1.
- Choice B is correct.** (6.SP.B.4) The point $(-3, 4)$ has a negative x -coordinate and a positive y -coordinate. Points with $(-, +)$ are in Quadrant II.



Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ **CONFIDENCE TODAY.
SUCCESS TOMORROW!**

WHAT STUDENTS WILL GAIN



Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Deepen Understanding

Reinforce key math concepts aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



10 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS