

9

Rhode Island RICAS

GRADE

6

MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



9 PRINTED TESTS

Realistic practice to build confidence and mastery



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



9 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE TODAY.
SUCCEED TOMORROW.



PRACTICE



REVIEW



SUCCEED

9 Rhode Island RICAS Grade 6 Math Practice Tests

Standards-Aligned Compact, Careful Review for Rhode Island Comprehensive Assessment System

$436 + 289$ $A = 24$

1 2 3 4 5 6 7 8 9

7×8 $\frac{5}{6}$

complete Rhode Island practice rounds

Nine complete 40-question Grade 6 practice rounds for RICAS, built for compact, careful review 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!

Nine focused rounds using compact, careful review

This book gives you nine full Grade 6 practice tests for RICAS. Each round uses harbor paths, short routes, and precise math notes 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

Make every step count: read exactly, solve neatly, and check before moving on.

Read

Plan

Check

How to Use This Book

A nine-session routine for compact, careful review

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Mark confidence.** Put a small star beside problems where your plan felt strong.
3. **Work in order.** Take one 40-question test at a time in a quiet place.
4. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.
5. **Correct actively.** Retry missed items before reading the full explanation.

Rhode Island review rhythm: Use each round as a focused check, then review the few skills that need attention.



What Is Inside?

Nine RICAS tests, 360 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation 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	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Compact, careful review means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

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1) Two manufacturing plants' defect rates (per 1000 units) are summarized below.

Plant	Mean	Median	Range
Plant X	12	11	8
Plant Y	10	10	20

Which plant's performance is more predictable?

- A. Plant X, because it has a lower range
- B. Plant Y, because it has a lower mean
- C. Both are equally predictable
- D. Plant X, because the mean equals the median
- 2) An error was made in the statement below. What is the error?
"The absolute value of -10 is -10 because the sign tells us the distance from zero."
- A. Absolute value can be negative
- B. Distance from zero is always non-negative; $|-10| = 10$
- C. The sign tells the distance from zero
- D. Absolute value is always negative
- 3) Marcus found the distance between $(5, 2)$ and $(5, 6)$ by computing $5 - 6 = -1$ units. What did Marcus do wrong?

- A. He subtracted the y -coordinates instead of the x -coordinates
- B. He did not use absolute value
- C. He used the wrong coordinates
- D. He forgot to identify which coordinates were the same



- 4) A debt of \$75 is represented as $-\$75$. If the debt is paid down by \$30, what is the remaining debt?

Starting debt: $-\$75$

↓ Pay \$30 (add $+\$30$)

Remaining debt: ?

- A. $-\$105$ C. \$45
 B. $-\$45$ D. \$105
- 5) Evaluate: $1\frac{1}{3} \div \frac{2}{5}$
- A. $\frac{10}{11}$ C. $3\frac{1}{3}$
 B. $\frac{8}{15}$ D. $2\frac{1}{4}$
- 6) A fabric costs \$8.50 per meter. How much does 2.5 meters cost?
- A. \$21.25 C. \$5.75
 B. \$10.75 D. \$20.00
- 7) A student measures the width of a table as 180 centimeters. How many meters wide is the table?

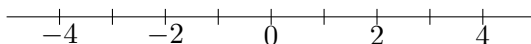


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8) A soccer coach is buying uniforms. She buys 12 red shirts and 18 blue shirts for the team. If she wants to divide them equally into piles with no shirts left over, what is the greatest number of piles she can make?

- A. 2 C. 6
 B. 3 D. 9

9) On a number line, which two integers are exactly 8 units apart?



- A. -4 and 0 C. 0 and 4
 B. -2 and 2 D. -4 and 4

10) A student mistakenly plotted $(4, -3)$ in Quadrant III. What is the correct quadrant for this point?

- A. Quadrant I C. Quadrant III
 B. Quadrant II D. Quadrant IV

11) A student wants to save \$360 for a gaming console. She can save \$30 per month. How many months will it take?

12) Which three numbers are correctly ordered from least to greatest?

- A. -2.1, -1.9, 0.5 C. 0.5, -1.9, -2.1
 B. -1.9, -2.1, 0.5 D. -1.9, 0.5, -2.1



1) Which chip model shows $-4 + 6$? (Red chips = -1 , Blue chips = $+1$)

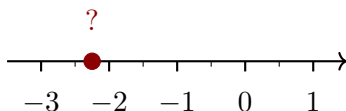
Model A: 4 red + 6 blue



Model B: 3 red + 5 blue



- A. Model A; answer is 2
 - B. Model B; answer is 2
 - C. Model A; answer is 10
 - D. Model B; answer is 8
- 2) A student's test score history: First test $+5$ points above average, second test -8 points below average, third test $+12$ points above average. What is the total relative to average?
- A. -11 points
 - B. 9 points
 - C. 25 points
 - D. -3 points
- 3) What is the GCF of 27, 36, and 54?
- A. 9
 - B. 18
 - C. 27
 - D. 54
- 4) Which number line correctly shows the position of -2.25 ?



- A. Halfway between -3 and -2
- B. Halfway between -2.5 and -2
- C. At -2
- D. Halfway between -2 and -1

5) Compute: $(-10) \times 3$

A. 30

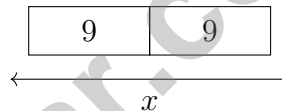
C. 7

B. -7

D. -30

6) A smoothie recipe uses strawberries and bananas in a 5 : 3 ratio. If the recipe calls for 15 strawberries, how many bananas should be added?

7) A bar model shows a number split into two equal parts. Each part is 9. Which equation and solution is correct?



A. $\frac{x}{2} = 9$; $x = 18$

C. $2x = 9$; $x = 4.5$

B. $x + 2 = 9$; $x = 7$

D. $\frac{x}{2} = 9$; $x = 4.5$

8) A bag of rice weighs 2.5 kg. If you buy three bags, what is the total weight?

A. 5.5 kg

C. 6.5 kg

B. 7.5 kg

D. 8.5 kg

9) Which situation is best represented by the integer -8 ?

A. A temperature rise of 8°F

C. A debt of \$8

B. A bank deposit of \$8

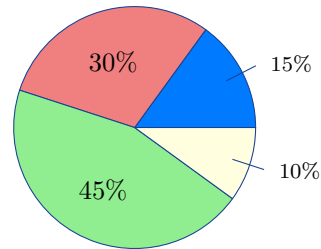
D. An elevation 8 feet above sea level



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- 1) Which number is located at the position labeled as -1.2 on a number line?
- A. $-\frac{6}{5}$ C. -1
 B. $-\frac{5}{4}$ D. $-\frac{1}{2}$
- 2) A survey shows that the probability a person likes ice cream is 90%. What is the probability that a person does **not** like ice cream?
- A. 0.1 C. 0.5
 B. 0.2 D. 0.9
- 3) A circular mural has a radius of 4 meters. A student calculates the area as $\pi \times 4 \approx 12.56$ m². What error did the student make?
- A. Forgot to use π C. Used πr instead of πr^2
 B. Used the wrong value of π D. Doubled the radius
- 4) A box plot shows the distribution of test scores. The line inside the box marks the:
- A. Mean C. Mode
 B. Range D. Median
- 5) Two classes' quiz scores (out of 20) have median of 16 but different ranges: Class X range = 8, Class Y range = 12. Which had more consistent performance?
- A. Class X C. Both equally consistent
 B. Class Y D. Cannot determine





6)

A circle graph with 600 total items has sections of 15%, 30%, 45%, and 10%. Which is the second-largest section by count?

- A. The 30% section with 180 items. C. The 10% section with 60 items.
 B. The 15% section with 90 items. D. The 45% and 30% sections equally.

7) A survey asked people to rate satisfaction on a scale of 1–5. The results: 1 (2 people), 2 (5 people), 3 (15 people), 4 (20 people), 5 (8 people).

Which display would BEST show that most people were satisfied (ratings 4–5)?

- A. Histogram grouping 1–2, 3, and 4–5 C. Circle graph showing all five ratings
 B. Bar graph with one bar per rating D. Dot plot with 50 dots

8) A researcher asks students: “How many minutes did you exercise yesterday?”

Which describes the population being sampled?

- A. All students in the school C. The students who answered the survey
 B. The number of minutes in a day D. All sixth graders in the state



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Rhode Island RICAS Practice Test Answer Keys

How to use this Rhode Island RICAS answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to compact, careful review
3. rework the problem before reading the full explanation, using this reminder:
Make every step count: read exactly, solve neatly, and check before moving on.

A calm Rhode Island correction routine turns every missed item into useful practice. Use each round as a focused check, then review the few skills that need attention.



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Rhode Island Practice Test Answers and Explanations

Review the nine printed RICAS tests with precise, focused, and ready for the next page habits.

Practice Test 1 Answers and Explanations

- Choice A is correct.** **(6.SP.B.5)** Predictability is measured by spread/consistency. Plant X (range = 8) is more consistent than Plant Y (range = 20), making its output more predictable despite a slightly higher mean.
- Choice B is correct.** **(6.SP.B.4)** Absolute value is distance from zero, so it is never negative. The sign indicates direction, not distance magnitude.
- Choice B is correct.** **(6.NS.C.8)** Distance requires absolute value: $|2 - 6| = 4$ units, not -1 . A error analysis question catching a common mistake.
- Choice B is correct.** **(6.NS.B.3)** Starting debt: -75 . Payment of 30: $-75 + 30 = -45$. Remaining debt is \$45.
- Choice C is correct.** **(6.NS.A.1)** $1\frac{1}{3} = \frac{4}{3}$, so $\frac{4}{3} \div \frac{2}{5} = \frac{4}{3} \times \frac{5}{2} = \frac{20}{6} = \frac{10}{3} = 3\frac{1}{3}$.
- Choice A is correct.** **(6.NS.B.3)** Multiply: $\$8.50 \times 2.5 = \21.25 .
- The correct answer is 1.8.** **(6.RP.A.2)** Divide: $180 \text{ cm} \div 100 \text{ cm/meter} = 1.8$ meters.
- Choice C is correct.** **(6.NS.B.4)** Find GCF(12, 18). Factors of 12: 1, 2, 3, 4, 6, 12. Factors of 18: 1, 2, 3, 6, 9, 18. GCF is 6. She can make 6 piles with 2 red shirts and 3 blue shirts each.
- Choice D is correct.** **(6.NS.C.5)** The distance between -4 and 4 is $4 - (-4) = 4 + 4 = 8$ units. These two numbers are 8 units apart on a number line.
- Choice D is correct.** **(6.NS.C.8)** The point $(4, -3)$ has a positive x -coordinate and negative y -coordinate, placing it in Quadrant IV (lower right). The student likely confused the quadrants.
- The correct answer is 12.** **(6.SP.B.4)** $\frac{\$360}{\$30 \text{ per month}} = 12$ months.
- Choice A is correct.** **(6.NS.C.7)** $-2.1 < -1.9 < 0.5$. Negatives come before positives; among negatives, more negative is less.
- Choice C is correct.** **(6.EE.A.3)** $6(2x - 3) = 12x - 18$. Choice C gives $12x - 3$, which is incorrect; it distributes only the 6 to the $2x$, not the -3 .
- Choice B is correct.** **(6.G.A.2)** $27 = 4.5 \times W \times 2 = 9 \times W$, so $W = 3$ cm.
- Choice A is correct.** **(6.G.A.3)** Area of triangle = $\frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times 7 \times 5 = 17.5$ square units, not 35. The student forgot the division by 2.
- Choice A is correct.** **(6.NS.C.8)** Reflection over the y -axis negates the x -coordinate: $(-4, 4) \rightarrow (4, 4)$.
- Choice A is correct.** **(6.SP.A.2)** $Q2 - Q1 = 50 - 40 = 10$ (bottom half spread). $Q3 - Q2 = 55 - 50 = 5$ (top half spread). The bottom half is more spread out.
- Choice B is correct.** **(6.SP.A.2)** Distances from mean 5 are 4, 2, 0, 2, 4. Their sum is 12, so the MAD is $12 \div 5 = 2.4$.
- Choice C is correct.** **(6.SP.B.4)** Students scoring below 80 are in the 60–70 and 70–80 ranges: $5 + 12 = 17$ students.
- The correct answer is Housing and Food are correctly calculated.** **(6.EE.C.9)** A: Housing is $40\% \times 2500 = \$1000$. Correct. B: Food is $24\% \times 2500 = \$600$. Correct. C: Utilities is $10\% \times 2500 = \$250$, not \$200. Incorrect. D: Transportation is $12\% \times 2500 = \$300$, not \$250. Incorrect. E: Savings is $14\% \times 2500 = \$350$, not \$400. Incorrect.
- Choice B is correct.** **(6.RP.A.3)** Counting the dots: 0 books (1 student), 1 book (4 students), 2 books (5 students), 3 books (3 students), 4 books (2 students), 5 books (1 student). Total = 16 students. The median is the average of the 8th and 9th values. Listing in order: 0, 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 4, 5. The 8th value is 2 and the 9th value is 2, so the median is 2.
- Choice A is correct.** **(6.NS.B.2)** $9,108 \div 52 = 175$ remainder 8. Check: $52 \times 175 = 9,100$, and $9,100 + 8 = 9,108$. So the whole-number quotient is 175.
- The correct answer is 140 dollars.** **(6.EE.C.9)** Use the hourly rate as the unit rate: $c = 40 \times 3.5 = 140$. The equation $c = 40h$ is proportional because when $h = 0$, $c = 0$, so it passes through the origin $(0, 0)$.



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Notes From the Math Gardener

Hi, Math Gardener!

◇ Look at how much you grew! 9 tests is like 9 weeks of taking care of your math garden. Every problem was a seed. Every try was water. ◇

★ **Gardeners say:** growth takes time. You can't see roots, but they are there. You can't always feel smarter, but you are. Your math garden is full! ★

Garden Check-Up

- **Roots:** STRONG! Your basic math is solid.
- **Stems:** STURDY! You can do step-by-step problems.
- **Leaves:** GREEN! You have lots of math tools.
- **Flowers:** BRIGHT! You feel proud of your work.

Gardener tip: keep watering your math garden long after the test. Every habit you built will grow with you for years!

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

Jay Daie

Your Math Gardener

PRACTICE MORE. ACHIEVE MORE.

This **Grade 6 Math Practice Tests** book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on any test.

With 9 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop 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

★ PRACTICE TODAY.
SUCCEED 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.



Deeper 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.



9 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS