

# 9

# Rhode Island

# RICAS

# GRADE 5 MATHEMATICS PRACTICE TESTS

Full-Length Standards-Aligned Practice  
for Strong Math Performance

$$A = l \times w$$

$$x^2 + 3x - 4 = 0$$

$$y = 2x + 1$$



**9**  
FULL-LENGTH  
PRACTICE  
TESTS

$$2,345 \times 6 = 14,070$$



$$\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$7.2 \div 0.8 = 9$$



$$(12 + 8) \div 4 = 5$$



Build Confidence



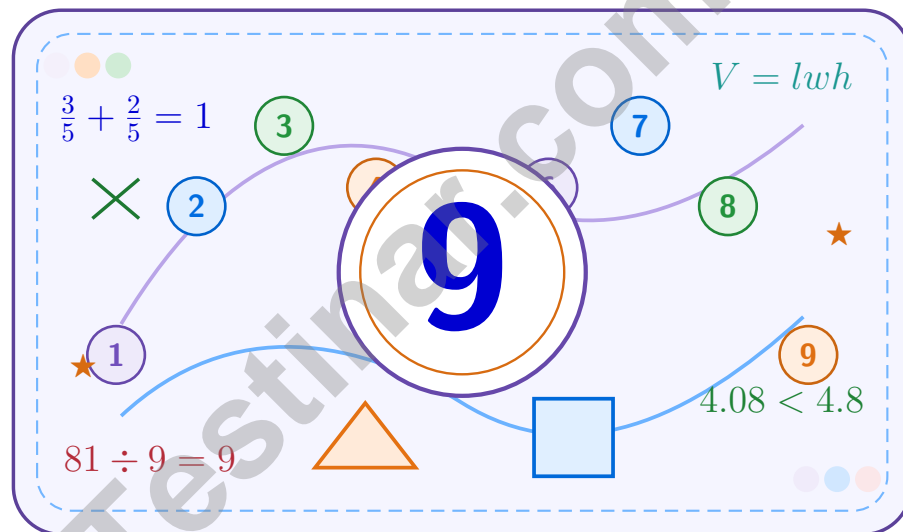
Improve Math Skills



Achieve Success

# 9 Rhode Island RICAS Grade 5 Math Practice Tests

*A nine-step confidence climb with clear review, smart strategy, and practice that gets stronger every round*



**Nine full tests, focused skill boosters, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.**

**Jay Daie and Reza Nazari**



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# Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

## To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these nine tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up fast.

### Try

Give each problem your best thinking.

### Check

Study mistakes and learn what happened.

### Rise

Bring that lesson into the next round.

**A strong habit for every page:** read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

# How to Use This Book

A simple practice routine that turns nine tests into steady growth

## A Nine-Session Climb Map

Session	Mission Focus
1	Take Test 1; review place value and operation slips.
2	Take Test 2; keep work neat and easy to read.
3	Take Test 3; give extra time to fractions and decimals.
4	Take Test 4; slow down on word problems and units.
5	Take Test 5; compare scores and habits with earlier rounds.
6	Take Test 6; notice which habits are now automatic.
7	Take Test 7; explain open-ended answers clearly.
8	Take Test 8; review topics that still need attention.
9	Take Test 9; finish with calm, careful, confident work.

### Step 1: Warm Up

**Start with the quick review.**  
Spend a few minutes refreshing the ideas before you start a test.

### Step 2: Take the Test

**Take one full practice test.**  
Work in a quiet space and let accuracy matter more than speed.

### Step 3: Study the Pattern

**Check your work honestly.**  
Circle missed questions and notice patterns in the mistakes.

### Step 4: Learn, Then Retry

**Read the explanation and try again.**  
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.



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# Test Overview

## What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Rhode Island RICAS. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first and crossing out weak choices can save time and points.

### Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

### Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

**What strong work looks like:** the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



# Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	32
★ Practice Test 3	_____	46
★ Practice Test 4	_____	62
★ Practice Test 5	_____	78
★ Practice Test 6	_____	92
★ Practice Test 7	_____	108
★ Practice Test 8	_____	122
★ Practice Test 9	_____	137
<b>Practice Test Answer Keys</b>	_____	<b>152</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>158</b>

## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

Perimeter of Rectangle  $P = 2l + 2w$  or  $P = 2(l + w)$

Area of Rectangle  $A = l \times w$

Area of Triangle  $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism  $V = l \times w \times h$

### LENGTH

#### Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

#### Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

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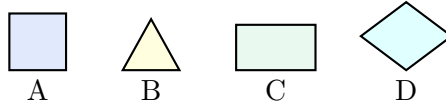
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- 1) The figures below are labeled A-D. Which figure is a parallelogram but not a rectangle?



- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D
- 2) What digit is in the hundredths place in 4.06?

*Record your answer in the space provided.*

- 3) A class has 30 students.  $\frac{2}{5}$  of them ride the bus. How many ride the bus?

*Record your answer in the space provided.*



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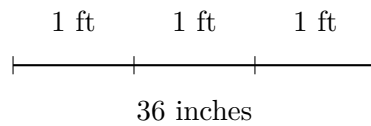
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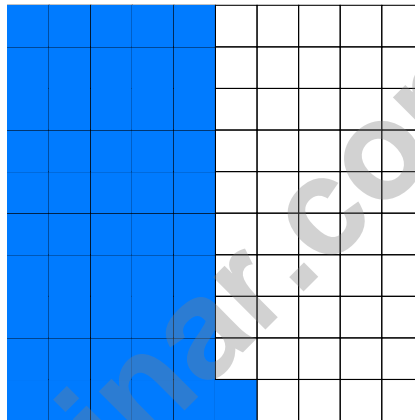
1 day = 24 hours (hr)    1 year = 52 weeks



- 1) How many yards are in 36 inches?



- A. 2 yards                       C. 3 yards  
 B. 4 yards                       D. 1 yard
- 2) Decimal-grid: 51 shaded squares. What is the decimal?



- A. 0.15                       C. 5.1  
 B. 0.51                       D. 51
- 3) Find the difference:  $\frac{7}{10} - \frac{1}{2}$ .

*Record your answer in the space provided.*



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1) Which pair of decimals is equivalent?

A. 0.4 and 0.04

C. 0.6 and 0.06

B. 0.5 and 0.05

D. 0.8 and 0.80

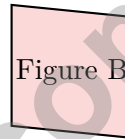
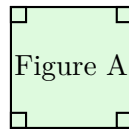
2) A composite science fair model is made from two non-overlapping rectangular prisms. Prism A is 9 meters long, 4 meters wide, and 2 meters tall. Prism B is 6 meters long, 2 meters wide, and 1 meter tall. What is the total volume?

A. 72 cubic meters

C. 120 cubic meters

B. 12 cubic meters

D. 84 cubic meters



3)

How are Figure A and Figure B similar in terms of the quadrilateral hierarchy?

A. Both have exactly one pair of parallel sides.

C. Both are rectangles and rhombuses.

B. They share no common categories.

D. Both are quadrilaterals and parallelograms.

4) True or false: An equilateral triangle always has all angles equal to 60 degrees.

A. Cannot be determined

C. Sometimes true

B. False

D. True

5) Evaluate the expression:  $\{(9 + 3) \times 2\} - 4 \div 5$

*Record your answer in the space provided.*



## Practice Test Answer Keys

### How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

**Good correction habits build strong Rhode Island scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(5.G.B.3)** Shape D does not have two pairs of parallel sides, so it is not a parallelogram. Squares, rhombuses, and rectangles all have two pairs of parallel sides.
- 2) **Choice B is correct.** **(5.NBT.A.2)** Multiply the nonzero parts first:  $3 \times 2 = 6$ . The factors 30 and 200 have three zeros total, so the product is 6,000.
- 3) **Choice D is correct.** **(5.NF.A.2)** LCD of 10, 5, and 2 is 10.  $\frac{1}{10} = \frac{1}{10}$ ,  $\frac{1}{5} = \frac{2}{10}$ ,  $\frac{1}{2} = \frac{5}{10}$ .
- 4) **Choice C is correct.** **(5.NF.A.2)** LCM(8,12) = 24.  $\frac{3}{8} = \frac{9}{24}$  and  $\frac{5}{12} = \frac{10}{24}$ .  $\frac{9}{24} + \frac{10}{24} = \frac{19}{24}$  liter.
- 5) **Choice D is correct.** **(5.G.A.2)** For input 3: Machine A outputs  $3 \times 2 = 6$ ; Machine B outputs  $3 + 1 = 4$ . Pair is (6, 4).
- 6) **Choice C is correct.** **(5.MD.A.1)** Since 1 pound = 16 ounces, multiply 5 by 16:  $5 \times 16 = 80$  ounces.
- 7) **The correct answer is 3.** **(5.NF.B.4)** First simplify  $\frac{2}{6}$  to  $\frac{1}{3}$ . Then  $9 \times \frac{1}{3} = \frac{9}{3} = 3$ .
- 8) **Choice A is correct.** **(5.NF.B.4)** The base area is 56 square centimeters. Since  $336 \div 56 = 6$ , the water is 6 cm deep.
- 9) **Choice D is correct.** **(5.MD.C.5)** A product grows when the factor is greater than 1. Only  $1\frac{1}{3}$  is greater than 1, so it makes  $9 \times \text{factor} > 9$ .
- 10) **Choice C is correct.** **(5.MD.B.2)** Count X marks above  $\frac{3}{8}$  on the line plot. There are 4 X marks.
- 11) **Choice A is correct.** **(5.NBT.A.2)** Dividing by 100 moves the decimal point two places to the left.  $9,000 \div 100 = 90$ .
- 12) **Choice B is correct.** **(5.NBT.A.2)** Each value in Pattern Y is double the matching value in Pattern X:  $3 \times 2 = 6$ ,  $6 \times 2 = 12$ , and  $9 \times 2 = 18$ .
- 13) **Choice C is correct.** **(5.OA.A.1)** The diagram separates the multiplication and division nicely:  $8 \times 5 = 40$  and  $12 \div 3 = 4$ . Then  $40 - 4 + 7 = 43$ .
- 14) **Choice A is correct.** **(5.G.A.1)** In an ordered pair  $(x, y)$ , the first number is the x-coordinate. For (6, 4), the x-coordinate is 6.
- 15) **Choice A is correct.** **(5.G.B.4)** The table gives the needed attributes directly: Shape A has exactly one pair of parallel sides, while Shape B has two pairs, so Shape B is a parallelogram.
- 16) **Choice B is correct.** **(5.NBT.A.2)**  $875 \times 10^2 = 875 \times 100 = 87500$ , so the exponent is 2.
- 17) **Choice D is correct.** **(5.NBT.A.2)**  $81 \times 1000 = 81000$ . Append three zeros to 81 to get 81000.
- 18) **Choice A is correct.** **(5.NBT.A.2)** Line up decimal points and subtract place by place.  $15.50 - 12.73 = 2.77$  cm decrease. This confirms the answer.
- 19) **The correct answer is 24.** **(5.OA.A.1)** Left:  $50 - 20 = 30$ ,  $30 \div 5 = 6$ . Right:  $2 + 4 = 6$ ,  $3 \times 6 = 18$ . Sum:  $6 + 18 = 24$ .
- 20) **Choice A is correct.** **(5.OA.A.1)** Subtract:  $5.72 - 2.45 = 3.27$ . Check:  $2.45 + 3.27 = 5.72$ .
- 21) **Choices A, B are correct.** **(5.NBT.B.7)** Multiply straight across:  $\frac{2}{3} \times \frac{3}{5} = \frac{6}{15} = \frac{2}{5}$ . C comes from adding instead of multiplying, and D is false because multiplying by a fraction less than 1 makes the amount smaller.
- 22) **Choice A is correct.** **(5.NBT.A.1)** Trailing zeros after the decimal point do not change the value, so  $5.300 = 5.3 = 5.30$ . They are equivalent.
- 23) **The correct answer is  $\frac{11}{15}$ .** **(5.NBT.A.1)** LCD 15:  $\frac{6}{15} + \frac{5}{15} = \frac{11}{15}$ .
- 24) **Choice C is correct.** **(5.NF.A.2)** Total:  $8.5 + 12.3 + 9.7 + 10.5 = 41.0$  kg.
- 25) **Choice D is correct.** **(5.NF.A.2)** The point is at  $\frac{1}{2}$ . The equivalent form shown is  $\frac{2}{4} = \frac{1}{2}$ .
- 26) **Choice B is correct.** **(5.MD.B.2)** Total miles:  $(3 \times 2) + (6 \times 3) + (9 \times 4) + (12 \times 1) = 72$  miles. There are 10 students, so the fair share is  $72 \div 10 = 7.2$  miles, which is about 7 miles to the nearest whole mile.
- 27) **Choice B is correct.** **(5.NF.B.6)** Use total amount divided by the size of one piece. The equation is  $12 \div \frac{1}{4} = n$ .
- 28) **The correct answer is 0.058.** **(5.NF.B.6)** Dividing by 1,000 moves the decimal point three places left:  $58 \rightarrow 0.058$ .
- 29) **Choice C is correct.** **(5.NBT.A.2)** The 7 figures in the outer part of the parallelogram circle are parallelograms but not rectangles.
- 30) **Choice B is correct.** **(5.G.B.4)** Two equal sides (10 m each) make it isosceles. In isosceles triangles, the two angles opposite the equal sides are also equal.
- 31) **Choice D is correct.** **(5.NF.B.4)** To find the missing product, compute  $3 \times 1\frac{2}{3} = 3 \times \frac{5}{3} = 5$ .



**Champion's Training Log**

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**Dear Math Champion,**

◇ Look at what you did. 9 full practice tests. Hundreds of math problems. Every one of them strengthened your mind. You walked into this prep series as a learner, and you are walking out as a math athlete who knows how to compete. ◇

★ **What champions know:** talent is helpful, but training is everything. You trained. You showed up. You did the work. That is why your skills are sharp today. ★

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- **Focus:** MAXED OUT! You can lock onto a problem and stay there.
- **Speed:** CALIBRATED! You move quickly without rushing.
- **Accuracy:** HIGH! You catch your own mistakes.
- **Mindset:** CHAMPION-LEVEL! You believe in your skills.

**Final champion tip:** on test day, walk in like you have trained for it—because you have. Sit down. Breathe. Read carefully. Work steadily. Check confidently. You will be amazed at how prepared you actually are.

If you want to share a proud moment or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com). I'd love to hear from you!

**Jay Daie**

Your Math Coaches (Champion-in-Training)

# PRACTICE MORE. ACHIEVE MORE.

Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

# 9

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