

9

Indiana

ILEARN

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



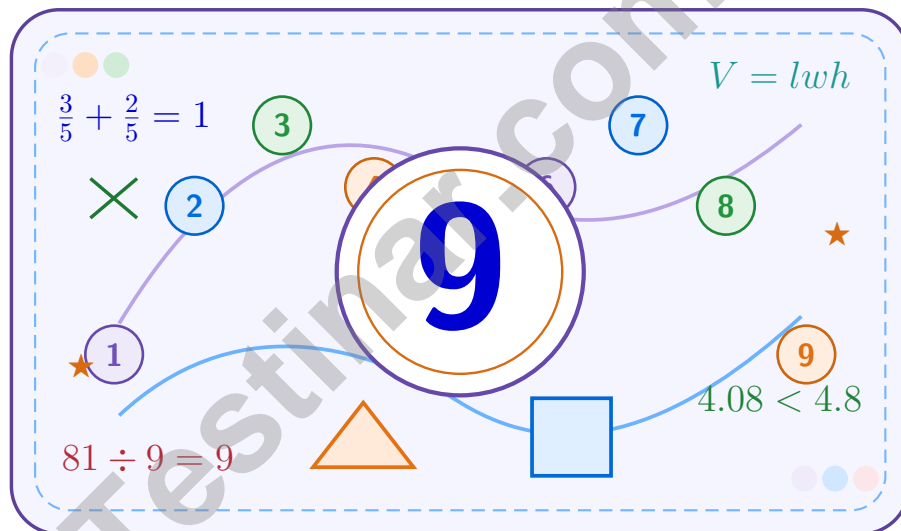
Improve Math Skills



Achieve Success

9 Indiana ILEARN 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 Indiana ILEARN. 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	_____	14
★ Practice Test 2	_____	28
★ Practice Test 3	_____	42
★ Practice Test 4	_____	57
★ Practice Test 5	_____	72
★ Practice Test 6	_____	86
★ Practice Test 7	_____	104
★ Practice Test 8	_____	119
★ Practice Test 9	_____	133
Practice Test Answer Keys	_____	148
Practice Test Answers and Explanations	_____	154

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

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TIME

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

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

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



- 1) A composite museum stand is made from two non-overlapping rectangular prisms. Prism A is 7 meters long, 4 meters wide, and 6 meters tall. Prism B is 6 meters long, 2 meters wide, and 2 meters tall. What is the total volume?

- A. 168 cubic meters C. 220 cubic meters
 B. 24 cubic meters D. 192 cubic meters

- 2) Which product is missing from the table?

Mixed Number	Product when multiplied by 2
$1\frac{1}{4}$	$2\frac{1}{2}$
$2\frac{1}{2}$	5
$3\frac{1}{4}$?

- A. 8 C. 6
 B. 7 D. $6\frac{1}{2}$
- 3) An athlete trains $\frac{1}{2}$ hour Monday, $\frac{2}{3}$ hour Tuesday. Is the total more than 1 hour?

- A. Less by $\frac{1}{3}$ C. Exactly 1 hour
 B. Less by $\frac{1}{6}$ D. More by $\frac{1}{6}$

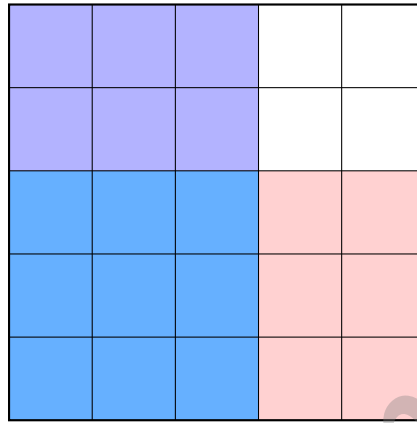
- 4) Pattern Alpha: 2, 4, 6, 8, 10. Pattern Beta: 1, 2, 3, 4, 5. Which ordered pair does NOT fit the rule "Beta is half of Alpha"?

Ordered Pair	Check
(2, 1)	$1 = 2/2 \checkmark$
(4, 2)	$2 = 4/2 \checkmark$
(6, 4)	$4 = 6/2?$
(8, 4)	$4 = 8/2?$

- A. (2, 1) C. (6, 4)
 B. (4, 2) D. (8, 4)



5) Find: $\frac{3}{5} \times \frac{3}{5}$



- A. $\frac{9}{25}$
 B. $\frac{6}{10}$

- C. $\frac{3}{5}$
 D. $\frac{9}{10}$

6) Find: $945 \div 21$.

Record your answer in the space provided.

7) What is $10.2 \div 100$?

- A. 0.102
 B. 1.025

- C. 102.5
 D. 0.012



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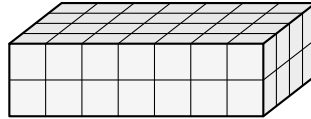
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1) A store sells 2500 bananas. This equals 25×10^n . Find n .

- A. 1 C. 4
 B. 3 D. 2

2) A box with volume 56 unit cubes has a length of 7 units and a width of 4 units. What is its height?



A. 1 unit C. 8 units
 B. 3 units D. 2 units

3) A baker found that rounding $7\frac{3}{11}$ to 7 and $2\frac{9}{10}$ to 3 gave an estimate of 10 for their sum. Is the estimate within 0.5 of the true sum?

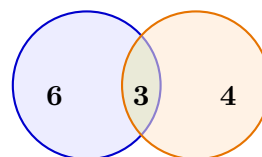
A. Yes, it equals the exact sum C. No, it is off by more than 0.5
 B. Yes, it is within 0.5 D. Cannot determine from the estimate

4) If $7 \times 8 = 56$, what is 700×80 ?

A. 5,600 C. 560,000
 B. 56,000 D. 5,600,000

5) A Venn diagram has one circle for rectangles and one circle for rhombuses. There are 6 rectangles only, 4 rhombuses only, and 3 squares in the intersection. How many figures are rectangles?

Rectangles Rhombuses



- A. 3 C. 10
 B. 13 D. 9



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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 Indiana scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice D is correct.** **(5.M.5)** Find each part first: Prism A is $7 \times 4 \times 6 = 168$ cubic meters, and Prism B is $6 \times 2 \times 2 = 24$ cubic meters. Because the parts do not overlap, add them: $168 + 24 = 192$ cubic meters.
- Choice D is correct.** **(5.CA.7)** $3\frac{1}{4} \times 2 = \frac{13}{4} \times 2 = \frac{26}{4} = 6\frac{1}{2}$.
- Choice D is correct.** **(5.CA.4)** $\frac{1}{2} + \frac{2}{3}$: common denominator 6. $\frac{1}{2} = \frac{3}{6}$ and $\frac{2}{3} = \frac{4}{6}$. Total: $\frac{7}{6} = 1\frac{1}{6}$ hours.
- Choice C is correct.** **(5.CA.11)** For (6, 4): $4 \neq 6/2 = 3$. The correct pair should be (6, 3).
- Choice A is correct.** **(5.M.2)** $\frac{3}{5} \times \frac{3}{5} = \frac{9}{25}$. The overlap covers 9 squares out of 25 total.
- The correct answer is 45.** **(5.CA.1)** $21 \times 40 = 840$, leaving 105. $105 \div 21 = 5$. Quotient: $40 + 5 = 45$.
- Choice A is correct.** **(5.CA.1)** Dividing by 100 moves the decimal 2 places left: $10.2 \rightarrow 1.02 \rightarrow 0.102$.
- Choice B is correct.** **(5.NS.3)** Prism B has volume $7 \times 4 \times 4 = 112$ cubic units, which is the greatest.
- Choice A is correct.** **(5.CA.9)** Since each bottle has less than 1 liter, 6 bottles hold less than 6 liters. The total is $0.9 \times 6 = 5.4$ liters.
- Choice B is correct.** **(5.NS.3)** Multiplying by 100 moves the decimal two places right: $2.5 \rightarrow 25 \rightarrow 250$.
- Choice D is correct.** **(5.NS.3)** The parentheses make the two expressions different. Left: $4 \times (10 - 6) = 4 \times 4 = 16$. Right: $(4 \times 10) - 6 = 40 - 6 = 34$. Since $16 < 34$, the left side is less.
- Choice A is correct.** **(5.M.1)** Since 1 pound = 16 ounces, 3 pounds = $3 \times 16 = 48$ ounces. Carlos is correct.
- Choice C is correct.** **(5.M.1)** The denominator increased from 4 to 12 (multiply by 3). Multiply the numerator by 3: $3 \times 3 = 9$.
- Choice A is correct.** **(5.CA.4)** LCD of 6, 4, and 3 is 12. $\frac{1}{6} = \frac{2}{12}$, $\frac{1}{4} = \frac{3}{12}$, $\frac{1}{3} = \frac{4}{12}$.
- Choice A is correct.** **(5.CA.10)** Multiply: $3.50 \times 42 = 147.00$ dollars per week.
- Choice D is correct.** **(5.CA.10)** Convert $1\frac{1}{2}$ to $\frac{6}{4}$. Add: $\frac{6}{4} + \frac{3}{4} = \frac{9}{4} = 2\frac{1}{4}$ cups.
- Choice B is correct.** **(5.CA.3)** First find the apples Marissa bought: 3 bags times 5 apples is 3×5 . Then subtract the 2 apples she ate.
- Choice C is correct.** **(5.CA.11)** Point C is at (5, 8). Moving 4 units down subtracts 4 from the y -coordinate: $8 - 4 = 4$. The x -coordinate stays 5. So point D is at (5, 4).
- Choice A is correct.** **(5.CA.7)** The factors increase from $\frac{1}{2}$ to 1 to $\frac{3}{2}$, so the products increase: 5, 10, 15.
- Choice A is correct.** **(5.CA.11)** Look at how much the pattern changes each time: $11 - 6 = 5$, $16 - 11 = 5$, and $21 - 16 = 5$. The repeated difference is 5, so the rule is add 5.
- Choices A, B are correct.** **(5.CA.11)** A is true because 3 copies of (6 + 4) can be written as 2 copies plus 1 more copy. B is true because 10 groups of 7 are greater than 10 groups of 7 - 1. C adds an extra 9, and D leaves out one group of 5.
- Choice C is correct.** **(5.M.4)** Prism A: $9 \times 4 \times 3 = 108 \text{ cm}^3$. Prism B: $6 \times 6 \times 3 = 108 \text{ cm}^3$.
- Choice C is correct.** **(5.DA.1)** Count the X marks at $1\frac{1}{2}$ meters. There are 3 X marks, so 3 fabric pieces are $1\frac{1}{2}$ meters long.
- Choice A is correct.** **(5.CA.7)** $\frac{3}{4} \times \frac{4}{5} = \frac{12}{20} = \frac{3}{5}$ acre.
- Choice B is correct.** **(5.CA.7)** Work from the inside out. First $12 \div 4 = 3$, then the bracket becomes $5 + 3 = 8$, and finally $8 \times 2 = 16$.
- Choice D is correct.** **(5.M.1)** The tape diagram shows A as one unit. B is made of two of those same units, so B is twice A.
- Choice B is correct.** **(5.CA.11)** The ordered pairs should be (2,1), (4,2), and (6,3), so Student 2 is correct.
- The correct answer is 11.37.** **(5.CA.10)** Write each to two decimals: $9.50 + 0.67 + 1.20 = 11.37$.
- Choice C is correct.** **(5.CA.10)** 1 centimeter = 10 millimeters. Multiply: $24 \times 10 = 240$ mm.
- The correct answer is 576 in³.** **(5.M.1)** Use length times width times height: $12 \times 6 \times 8 = 576$. The aquarium's volume is 576 cubic inches.
- Choice C is correct.** **(5.M.3)** $21 \times 13 = (20 + 1) \times 13 = (20 \times 13) + (1 \times 13) = 260 + 13 = 273$ (Riley). Also, $21 \times 13 = 21 \times (10 + 3) = (21 \times 10) + (21 \times 3) = 210 + 63 = 273$ (Jamal). Piper made an error; the correct answer is 273, not 260.



Strong Climber, Listen Up!

◇ You did it. You climbed all 9 practice tests like a steady mountain climber—one foothold, one breath, one step at a time. The view from the top is wonderful because you earned it. Test day is the next peak, and you are stronger than the climber you were when you started. ◇

★ **Here is what mountain guides teach:** pacing matters more than speed. Take steady steps. Check your footing. Keep your eyes on the path. The same wisdom helps on a math test: read carefully, work calmly, and check your work before you move on. ★

Climber's Field Notes

- **Endurance:** STRONG! You can finish a long climb without losing focus.
- **Footwork:** STEADY! Your steps (your steps in problem-solving) are reliable.
- **Map Reading:** CLEAR! You read questions carefully before you start.
- **Summit Mindset:** READY! You know how to push through the last stretch.

Field tip: on test day, take small breaths between problems. Each problem is a foothold. Take it. Move on. Take the next. That is how mountains get climbed—and how tests get conquered.

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

Jay Daie

Your Math Guide (Onward and Upward)

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

**FULL-LENGTH
PRACTICE
TESTS**

- ✓ Realistic.
- ✓ Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.



THIS BOOK HELPS YOUR CHILD:



Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



Track Progress

Identify strengths and target areas with purposeful practice.



Achieve Success

Better preparation leads to higher scores and bright futures.

COVERS ALL ESSENTIAL TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Graphing & Data Analysis
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ And More!



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