

9

Iowa ISASP

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



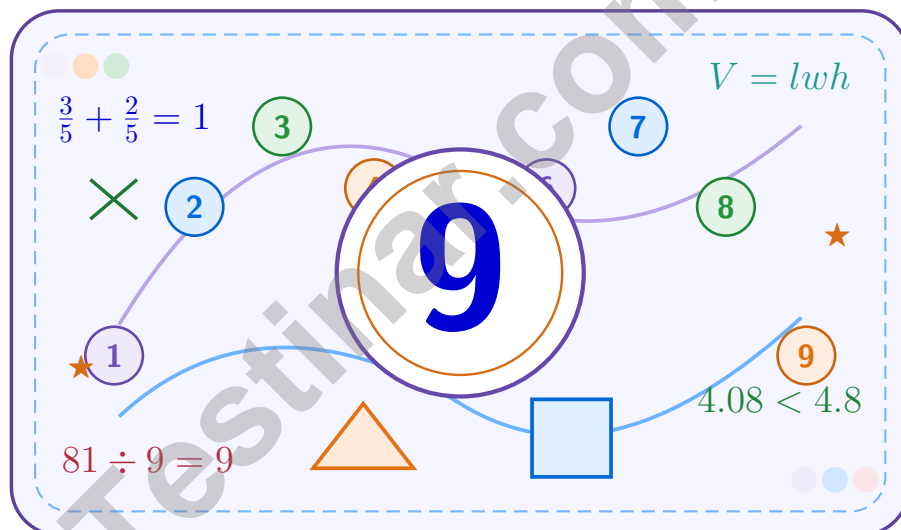
Improve Math Skills



Achieve Success

9 Iowa ISASP 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 Iowa ISASP. 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.



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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

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



5) Which option correctly gives the word form and expanded form of 5.068?

- A. Five and sixty-eight hundredths; $5 + 0.06 + 0.008$
- B. Five and sixty-eight thousandths; $5 + 0.06 + 0.008$
- C. Five and six hundred eight thousandths; $5 + 0.06 + 0.008$
- D. Five point zero six eight; $5 + 0.6 + 0.08$

6) A recipe needs $\frac{2}{3}$ cup flour and $\frac{1}{4}$ cup cocoa. How much dry ingredients in all?

Record your answer in the space provided.

7) Write the value of the digit 7 in the number 4.073.

Record your answer in the space provided.

8) Which multiplication problem is set up correctly to solve 5.4×3 ?

Setup	Product
A. $54 \times 3 = 162$	1.62
B. $54 \times 3 = 162$	16.2
C. $54 \times 3 = 162$	162
D. $5 \times 3 = 15$	1.5

- A. Option A
- B. Option D
- C. Option C
- D. Option B



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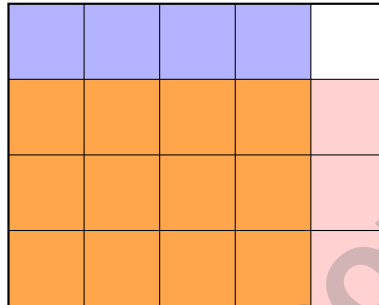
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1) Predict without calculating: Is $20 \times \frac{7}{8}$ greater than, less than, or equal to 20?

- A. Greater than 20 C. Less than 20
 B. Equal to 20 D. Impossible to tell

2) A carpenter has a board that is $\frac{4}{5}$ yard long. She cuts off $\frac{3}{4}$ of it for a project. What length does she use?

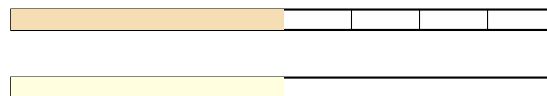


- A. $\frac{3}{5}$ yard C. $\frac{7}{9}$ yard
 B. $\frac{2}{5}$ yard D. $\frac{1}{5}$ yard

3) Which number is one-hundredth of 32.7?

- A. 3.27 C. 0.0327
 B. 0.327 D. 327

4) Use fraction bars. Top bar: 4 parts out of 8 shaded. Bottom bar: 1 part out of 2 shaded. What do they show?



$\frac{4}{8}$
 $\frac{1}{2}$

- A. The bars show different amounts C. The top bar is larger
 B. The bars show equivalent amounts D. The bottom bar is larger



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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 Iowa scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice C is correct.** (5.NF.B.6) $\frac{3}{5} \times 120 = \frac{3 \times 120}{5} = \frac{360}{5} = 72$ pounds.
- Choice A is correct.** (5.NF.B.6) Two cups is 16 fluid ounces. Maria already measured 1 cup 4 fluid ounces, or 12 fluid ounces, so $16 - 12 = 4$ fluid ounces remain.
- The correct answer is $3\frac{7}{8}$.** (5.NF.A.1) Wholes: $2 + 1 = 3$. Fractions: $\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$. Total: $3\frac{7}{8}$.
- Choice A is correct.** (5.NF.A.1) The tenths place is 4. Since 4 is less than 5, round down. 23.45 rounded to the nearest whole number is 23.
- Choice B is correct.** (5.NBT.A.3) 5.068 is “five and sixty-eight thousandths.” The 6 is in the hundredths place and the 8 is in the thousandths place, so the expanded form is $5 + 0.06 + 0.008$.
- The correct answer is $\frac{11}{12}$.** (5.NF.A.2) LCD 12: $\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$.
- The correct answer is 0.07.** (5.NF.A.2) The digit 7 is in the hundredths place, so it represents $7 \times 0.01 = 0.07$.
- Choice D is correct.** (5.NBT.A.1) 5.4 has 1 decimal place. $54 \times 3 = 162$, so we move the decimal 1 place left: 16.2.
- Choice D is correct.** (5.MD.B.2) There are 3 plants that got $\frac{3}{4}$ cup. The total is $3 \times \frac{3}{4} = 2\frac{1}{4}$ cups.
- The correct answer is $3\frac{5}{8}$.** (5.NF.A.1) $6\frac{1}{4} = 6\frac{2}{8} = 5\frac{10}{8}$. Subtract: $(5 - 2) + (\frac{10}{8} - \frac{5}{8}) = 3\frac{5}{8}$.
- Choice B is correct.** (5.NF.A.1) $\text{LCM}(12,3) = 12$. $\frac{1}{3} = \frac{4}{12}$. $\frac{5}{12} + \frac{4}{12} = \frac{9}{12} = \frac{3}{4}$.
- Choice A is correct.** (5.NF.A.1) The correct answer is $7.5 \div 100 = 0.075$. She incorrectly moved decimal right (multiplying behavior) rather than left.
- Choice C is correct.** (5.NBT.A.2) The exponent tells the number of zeros, and each power adds one more zero.
- Choice A is correct.** (5.NBT.A.2) $19 \times 100 = 1900$, $190 \times 10 = 1900$, and $1900 \times 1 = 1900$. All equal 1900.
- Choice D is correct.** (5.NBT.B.6) $3,135 \div 45 = 69 \text{ R}30$. Check: $(45 \times 69) + 30 = 3,105 + 30 = 3,135$.
- Choice A is correct.** (5.NBT.B.6) Line up decimal points and subtract place by place. $72.45 - 58.13 = 14.32$ degrees Fahrenheit. This confirms the answer.
- Choice A is correct.** (5.NBT.B.7) The product part is 2×6 . Since 5 is added to that product, the phrase is “five more than the product of 2 and 6.”
- Choice C is correct.** (5.OA.A.2) Both points have the same y -coordinate (8), so they are on a horizontal line. The distance is $6 - 3 = 3$ units.
- Choice D is correct.** (5.G.A.2) Position 3: Row 1 value is 3, Row 2 value is 30. Pair is (3, 30).
- Choices A, B are correct.** (5.G.A.2) Both A and B work: you can multiply length, width, and height, or multiply the base area by the height. C and D do not multiply all three dimensions correctly.
- Choice D is correct.** (5.OA.B.3) Each term is twice the term before it: 3 becomes 6, 6 becomes 12, and 12 becomes 24. Keep that same rule, so $24 \times 2 = 48$.
- Choice B is correct.** (5.OA.B.3) Divide pennies by 100 to convert to dollars: $8,400 \div 100 = 84$. So Carla has \$84.
- Choice A is correct.** (5.NBT.A.2) $3\frac{1}{4} = \frac{13}{4}$. Then $\frac{13}{4} \times 2 = \frac{26}{4} = 6\frac{2}{4} = 6\frac{1}{2}$.
- Choice A is correct.** (5.NF.B.4) LCD of 4 and 6 is 12. $\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$ and $\frac{1}{6} = \frac{1 \times 2}{6 \times 2} = \frac{2}{12}$.
- Choice C is correct.** (5.NF.B.5) Any positive number multiplied by a factor less than 1 always produces a smaller result.
- Choice C is correct.** (5.NF.B.5) $4.5 \times 100 = 450$ (move decimal 2 places right).
- Choice D is correct.** (5.MD.C.3) Find each part first: Prism A is $7 \times 4 \times 4 = 112$ cubic inches, and Prism B is $6 \times 4 \times 4 = 96$ cubic inches. Because the parts do not overlap, add them: $112 + 96 = 208$ cubic inches.
- Choice B is correct.** (5.OA.A.2) Use $(12 + 5)$ as the starting amount. Multiplying it by 2 makes it larger, while dividing by 2 or subtracting 2 makes it smaller.
- Choice B is correct.** (5.OA.A.2) The correct work multiplies before adding. Student B finds $2 \times 5 = 10$ first, then adds $6 + 10 = 16$.
- Choice B is correct.** (5.G.A.1) Point A is located 2 units right (x -coordinate) and 8 units up (y -coordinate), so it is at (2, 8).



Mathematical Explorer's Journey

Welcome, Brave Explorer!

◇ Phenomenal expedition! You've successfully navigated through 9 mathematical territories, exploring every concept and discovering new strategies along the way! You've mapped out the landscape of Grade 5 math with the courage of a true adventurer. Each problem was uncharted territory, and you charted it with skill and determination! ◇

★ **Wisdom from veteran explorers:** the most rewarding journeys are the ones that challenge you most. Through 9 comprehensive practice tests, you've climbed mathematical mountains, crossed conceptual rivers, and discovered solutions in places you didn't know existed. Your exploration skills are strong, your map is detailed, and you're ready for any test-day adventure! ★

Explorer's Achievement Map

- **Territory Covered:** You've explored every major mathematical concept thoroughly!
- **Navigation Skills:** You can find your way through any problem with multiple solution paths!
- **Equipment Mastered:** You know exactly which strategies to use in different situations!
- **Expedition Ready:** You're fully prepared for the ultimate test day adventure!

Important explorer wisdom: experienced adventurers always review their maps before important journeys. Take a few moments before test day to mentally review your successful strategies. Visualize yourself confidently tackling each type of problem. You've already proven you can handle the expedition!

If you'd like to share your experience or have questions, please email me at reza@testinar.com. I'd love to hear from you!

Reza Nazari & Jay Daie

Your Math Teacher and Test-Day Coach

PRACTICE MORE. ACHIEVE MORE.

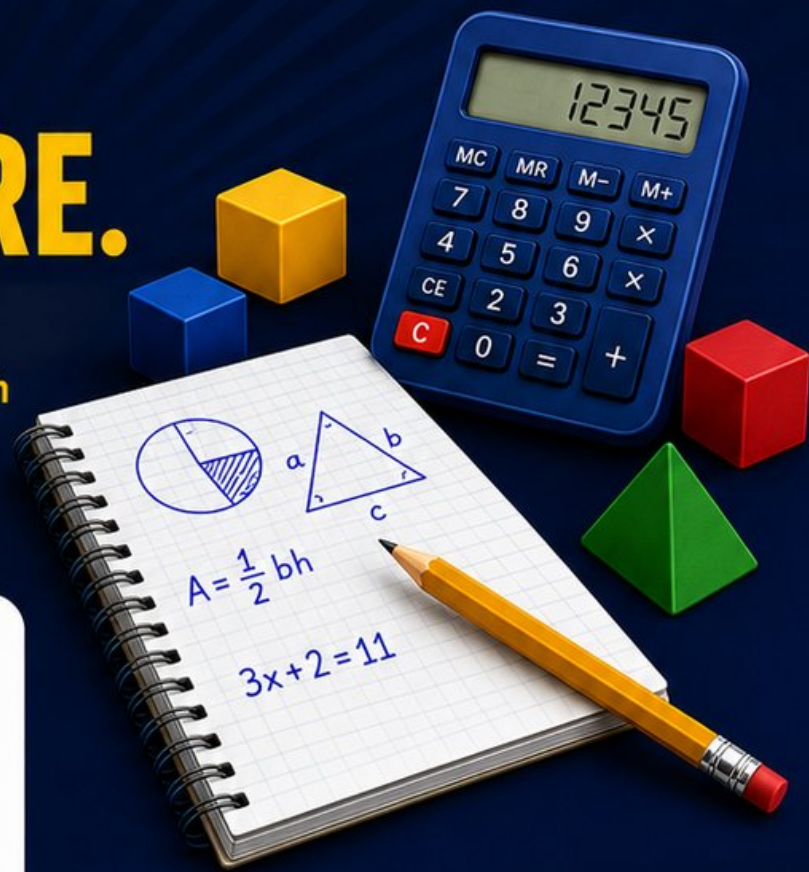
Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

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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