

9

Connecticut

Smarter Balanced

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



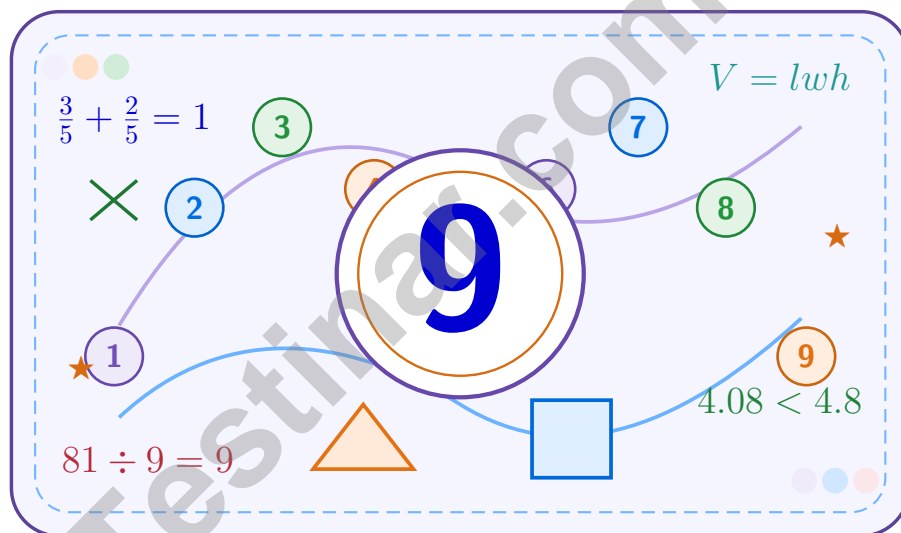
Improve Math Skills



Achieve Success

9 Connecticut Smarter Balanced 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 Connecticut Smarter Balanced. 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)

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

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



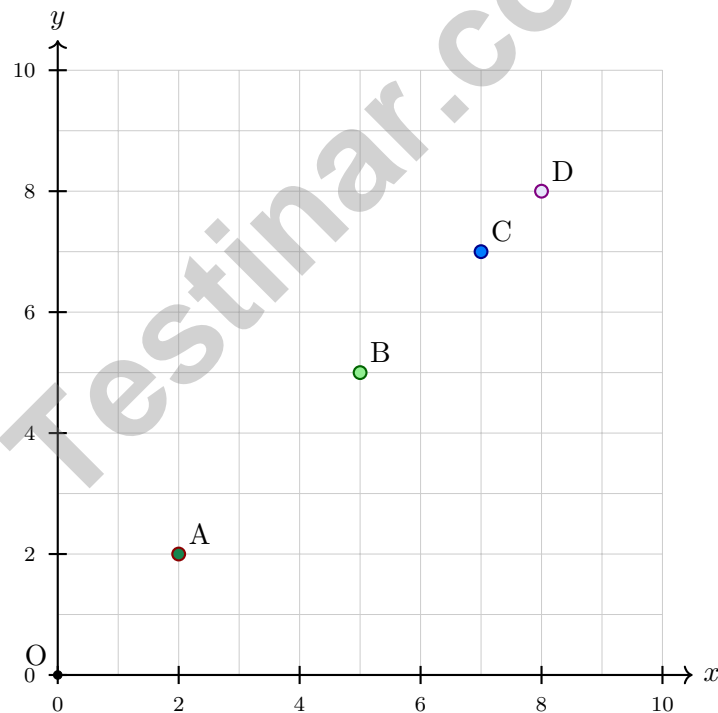
- 1) A composite art display is made from two non-overlapping rectangular prisms. Prism A is 9 inches long, 4 inches wide, and 4 inches tall. Prism B is 6 inches long, 4 inches wide, and 4 inches tall. What is the total volume?

- A. 144 cubic inches C. 96 cubic inches
 B. 240 cubic inches D. 276 cubic inches

- 2) A toy chest measures 7 meters long, 3 meters wide, and 4 meters tall. What is its volume?

- A. 21 cubic meters C. 12 cubic meters
 B. 28 cubic meters D. 84 cubic meters

- 3) Plot these points and answer: using horizontal and vertical grid steps, which point is closest to the origin? Point A: (2, 2), Point B: (5, 5), Point C: (7, 7), Point D: (8, 8).



- A. Point A C. Point C
 B. Point B D. Point D



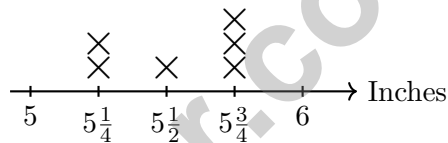
4) Three athletes run different distances:

Athlete	Distance (km)
Alex	7.25
Jordan	8.5
Casey	6.75

What is the total distance run in meters?

- A. 2,250 meters C. 22,500 meters
 B. 7,500 meters D. 225,000 meters

5) The line plot shows pencil lengths, in inches. What is the total length of all 6 pencils?



Record your answer in the space provided.

6) Maya's calculator shows 3.7. She multiplies by 100. What is the display?

- A. 3.7 C. 370
 B. 37 D. 3,700



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1) Simplify and add: $\frac{2}{8} + \frac{2}{4}$

A. $\frac{4}{12}$

B. 1 whole

C. $\frac{3}{4}$

D. $\frac{5}{8}$

2) A craft project requires $\frac{5}{12}$ of a piece of string and then $\frac{4}{12}$ more. How much string is used total?

A. $\frac{1}{12}$

B. $\frac{6}{12}$

C. $\frac{9}{12}$

D. $\frac{1}{2}$

3) A science lab measures a sample with a mass of 15.375 grams. What is the digit in the hundredths place?

A. 1

B. 3

C. 7

D. 5

4) Which shows the correct steps to multiply $3\frac{1}{2} \times 2\frac{1}{4}$?

Method	Steps
A	$3 \times 2 = 6$; $3 \times \frac{1}{4} = \frac{3}{4}$; $6 + \frac{3}{4} = 6\frac{3}{4}$
B	Convert to $\frac{7}{2} \times \frac{9}{4}$; multiply to get $\frac{63}{8} = 7\frac{7}{8}$
C	Convert to $\frac{7}{2} \times \frac{9}{4}$; multiply to get $\frac{63}{6} = 10\frac{1}{2}$

A. Method A

B. Method B

C. Method C

D. Methods A and C

5) What is $36 \div 10^1$?

A. 360

B. 36

C. 0.36

D. 3.6



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1) Which value equals 0.5 divided by 10,000?

A. 0.05

C. 0.005

B. 0.0005

D. 0.00005

2) A student spent \$18.50 at a store. She returned an item worth \$6.75. How much of her purchase remains?

A. \$11.75

C. \$12.25

B. \$11.85

D. \$11.25

3) Which point is at (5, 5)?



A. S

C. U

B. T

D. None of them



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1) A recipe calls for $1\frac{1}{2}$ cups flour and $\frac{3}{4}$ cup sugar. Total needed?

A. $\frac{1}{4}$ cup

B. 2 cups

C. $1\frac{1}{4}$ cups

D. $2\frac{1}{4}$ cups

2) A triangle has angles of 60 degrees, 60 degrees, and 60 degrees. What type of triangle is this based on its angles?

A. Acute triangle

B. Right triangle

C. Obtuse triangle

D. Isosceles triangle

3) Find: $\frac{3}{8} \times 100$.

Record your answer in the space provided.

4) Which multiplication will give a product of 81000?

A. 81×10

B. 810×10

C. 8100×100

D. 81×1000

5) Estimate the product 189×6 by rounding 189 to the nearest hundred, then multiply.

A. 1,000

B. 1,100

C. 1,200

D. 1,400

6) Without calculating, compare: $(12 + 4) \times 10$ $(12 + 4) \times 9$

A. $>$

B. $<$

C. $=$

D. Cannot tell



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 Connecticut scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice B is correct.** **(5.MD.C.5c)** Find each part first: Prism A is $9 \times 4 \times 4 = 144$ cubic inches, and Prism B is $6 \times 4 \times 4 = 96$ cubic inches. Because the parts do not overlap, add them: $144 + 96 = 240$ cubic inches.
- Choice D is correct.** **(5.MD.C.5)** Use the rectangular-prism volume formula: $7 \times 3 \times 4 = 84$. So the volume is 84 cubic meters.
- Choice A is correct.** **(5.MD.C.5)** Using horizontal and vertical grid steps, add the right steps and up steps. Point A needs $2 + 2 = 4$ steps from the origin, while the other points need more steps.
- Choice C is correct.** **(5.MD.A.1)** Total distance: $7.25 + 8.5 + 6.75 = 22.5$ km. Convert to meters: $22.5 \times 1,000 = 22,500$ meters.
- The correct answer is $33\frac{3}{4}$ in.** **(5.MD.B.2)** $2(5\frac{1}{4}) + 1(5\frac{1}{2}) + 3(5\frac{3}{4}) = 10\frac{1}{2} + 5\frac{1}{2} + 17\frac{1}{4} = 33\frac{3}{4}$ in.
- Choice C is correct.** **(5.NBT.A.2)** Multiplying by 100 moves the decimal two places right, so 3.7 becomes 370.
- Choice D is correct.** **(5.NBT.A.2)** Each identical 5-by-5 layer has 25 cubes. Three layers total: $25 \times 3 = 75$ unit cubes.
- Choice D is correct.** **(5.MD.C.4)** Points on the same horizontal grid line have the same second coordinate, but their first coordinates can be different. Points A, B, C are all 5 units above the x-axis and have first coordinates 2, 5, and 8.
- Choice A is correct.** **(5.NBT.B.6)** $1,400 \div 28 = 50$ and $1,400 \div 35 = 40$. Since we are dividing the same amount by a smaller divisor ($28 < 35$), the quotient is larger: $50 > 40$.
- Choice A is correct.** **(5.NF.B.4b)** Area = $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$ square meters.
- Choice A is correct.** **(5.G.B.4)** A square has all the properties of a rectangle: four right angles and two pairs of parallel sides. A rectangle does not need to have all four sides equal, so not every rectangle is a square.
- Choice B is correct.** **(5.OA.A.1)** Both parentheses become simpler numbers: $9 + 6 = 15$ and $5 - 2 = 3$. So the original expression is equivalent to 15×3 .
- Choice C is correct.** **(5.OA.A.1)** Both points have the same y-coordinate (6), which means they lie on a horizontal line at height 6.
- Choice C is correct.** **(5.MD.A.1)** Since 1 quart = 32 fl oz, multiply 2 by 32: $2 \times 32 = 64$ fl oz.
- Choice B is correct.** **(5.NBT.A.3a)** 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 $5 + 0.06 + 0.008$.
- Choice A is correct.** **(5.NBT.B.7)** 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.
- The correct answer is 36855.** **(5.NBT.B.5)** $819 \times 5 = 4,095$ and $819 \times 40 = 32,760$. Sum: $4,095 + 32,760 = 36,855$.
- Choice B is correct.** **(5.NBT.B.5)** Multiplying by 1 always preserves the original number. All other values change the result: less than or greater than 15.
- Choices A, B are correct.** **(5.OA.A.2)** 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 D is correct.** **(5.NF.B.5a)** $24 \times \frac{1}{6} = 4$ students are absent. Scaling down by $\frac{1}{6}$ gives a smaller number.
- The correct answer is $\frac{1}{16}$.** **(5.NF.B.7c)** Half of one eighth is one sixteenth, so each piece is $\frac{1}{16}$ of the whole.
- Choice C is correct.** **(5.NF.B.7c)** One prism has volume $5 \times 4 \times 3 = 60$ cubic inches. Two prisms have volume $60 \times 2 = 120$ cubic inches.
- Choice C is correct.** **(5.NF.A.2)** Multiples of 9: 9, 18, 27, ... Multiples of 3: 3, 6, 9, ... The LCD is 9.
- Choice A is correct.** **(5.NF.A.2)** Dividing by $10^3 = 1,000$ makes the number smaller. The decimal point shifts three places to the left (one place per power of 10).
- The correct answer is 1.00.** **(5.NBT.B.7)** Line up decimal points and add place by place. $0.92 + 0.08 = 1.00$. This confirms the answer.
- Choice D is correct.** **(5.NBT.B.7)** 0.54 has 54 hundredths shaded; 0.45 has 45 hundredths. $0.54 > 0.45$.
- Choice C is correct.** **(5.NF.A.1)** $\text{LCM}(10,4) = 20$. $\frac{7}{10} = \frac{14}{20}$ and $\frac{1}{4} = \frac{5}{20}$. $\frac{14}{20} + \frac{5}{20} = \frac{19}{20}$.
- Choice C is correct.** **(5.NF.A.1)** Count X marks at $\frac{1}{2}$ and $\frac{5}{8}$. That is $3 + 1 = 4$ frogs.



Workshop Notes for an Inventor

Dear Math Inventor,

◇ 9 practice tests. 9 chances to invent new ways of thinking. You tried strategies, broke them, fixed them, and built them stronger. That's what inventors do. That's what you do. ◇

★ **What inventors know:** the first idea isn't always the best one. Sometimes you have to try, fail, learn, and try again. You've practiced that exact loop on every test. That practice is why your problem-solving brain is so flexible now. ★

Inventor's Workshop Inventory

- **Sketch Pad:** FULL of ideas! You can imagine multiple ways to solve.
- **Toolbox:** STOCKED! You have many strategies to draw on.
- **Workbench:** ORGANIZED! Your work is clear and step-by-step.
- **Invention Mindset:** STRONG! You're not afraid to try something new.

Inventor's tip: on test day, if your first idea doesn't work, switch tools. Try a different strategy. Inventors don't get stuck on one tool—they pick the right one for the job. Same on a math test.

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 Inventor (Build Big Things)

PRACTICE MORE. ACHIEVE MORE.

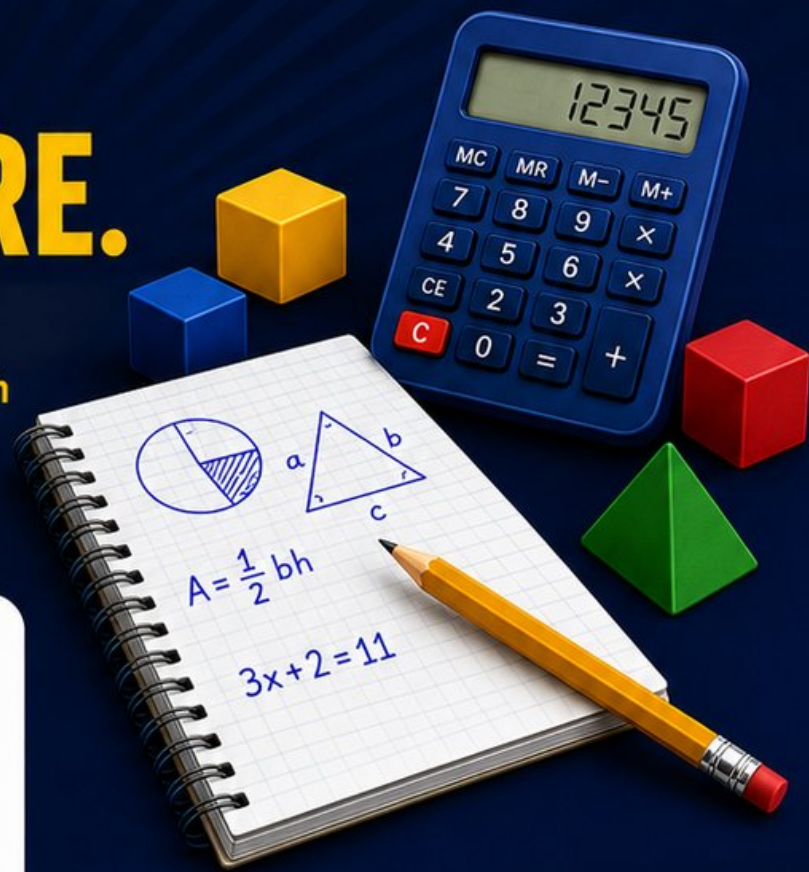
Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

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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