

9

Hawaii

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



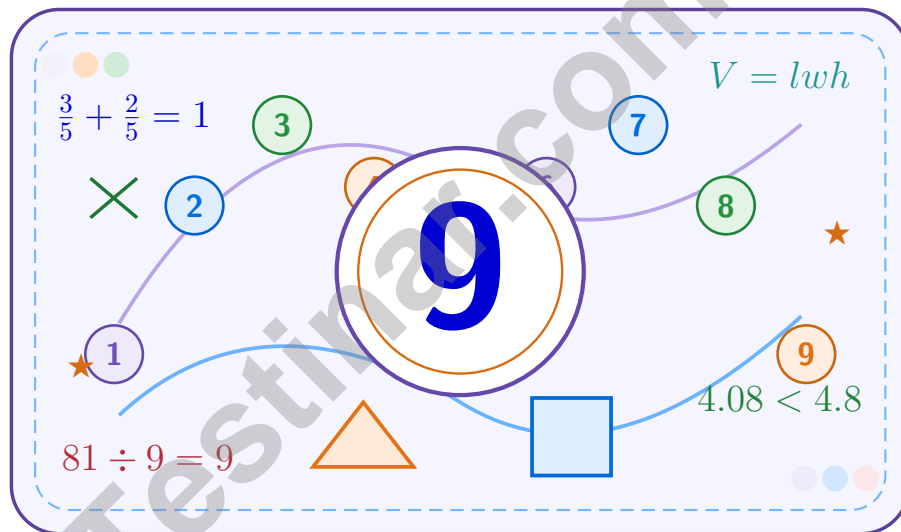
Improve Math Skills



Achieve Success

9 Hawaii 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 Hawaii 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.



Table of Contents

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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)

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1) Which two prisms have the same volume?

Prism	Length	Width	Height
P	5	4	6
Q	10	3	5
R	8	6	2
S	4	4	6

A. P and Q

B. Q and R

C. R and S

D. P and S

2) Which product is between 5 and 6?

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

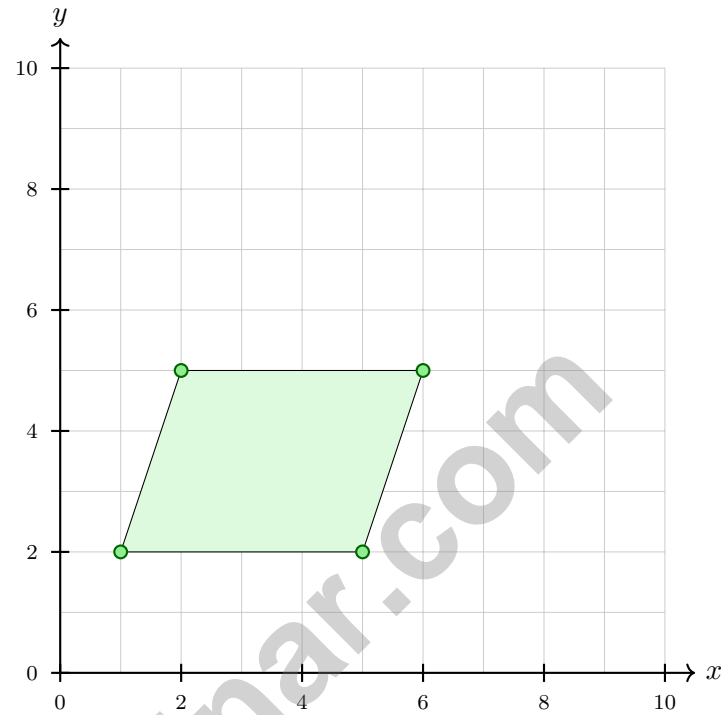
B. $1\frac{2}{3} \times 3$

C. $2\frac{1}{2} \times 2$

D. $2\frac{3}{4} \times 2$



- 3) A parallelogram has vertices at $(1, 2)$, $(5, 2)$, $(6, 5)$, and $(2, 5)$. What is the length of the bottom side?



- A. 3 units C. 5 units
 B. 4 units D. 6 units
- 4) What is the total volume of a composite solid made from non-overlapping prisms that measure 6 cm by 4 cm by 3 cm and 5 cm by 4 cm by 3 cm?

Record your answer in the space provided.



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1) Which statement is true about a right triangle?

- A. It has all angles less than 90° C. It has two angles of 90°
 B. It has exactly one angle of 90° D. It has no angles of 90°

2) A teacher has $\frac{1}{5}$ of a chocolate bar. She divides it equally among 3 students. How much chocolate does each student get?

- A. $\frac{1}{15}$ of the bar C. $\frac{1}{2}$ of the bar
 B. $\frac{3}{5}$ of the bar D. $\frac{1}{8}$ of the bar

3) What is $\frac{1}{10}$ of 0.9?

- A. 0.09 C. 9
 B. 0.9 D. 90

4)

Factor	Scaling Effect	Example
$\frac{1}{2}$	Shrinks by half	$8 \times \frac{1}{2} = 4$
1	No change	$8 \times 1 = 8$
2	Doubles	$8 \times 2 = 16$

Based on the table, if you scale 12 by $\frac{2}{3}$, what do you predict about the product?

- A. Product is 6 (half of 12) C. Product is 12 (unchanged)
 B. Product is 8 (two-thirds of 12) D. Product is 24 (doubled)



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1) A recipe uses 2.5 cups of flour for each batch. How much flour is needed for 6 batches?

- A. 12 cups C. 15 cups
 B. 13 cups D. 18 cups

2) A concert venue arranges seats in sections. If there are 100 sections with 58 seats per section, how many seats total?

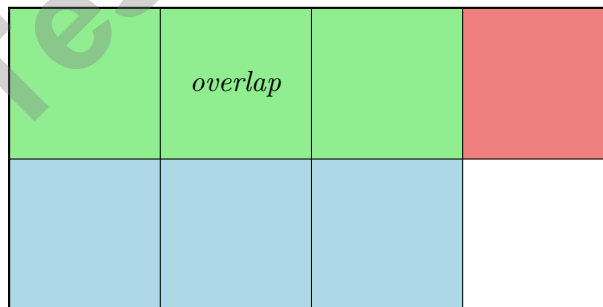
- A. 158 C. 580
 B. 58000 D. 5800

3) Use partial quotients to divide $765 \div 17$:

$$\begin{array}{r}
 765 \div 17 \\
 \hline
 17 \times 30 = 510 \qquad 765 - 510 = 255 \\
 17 \times 15 = 255 \qquad 255 - 255 = 0 \\
 \hline
 30 + 15 = 45
 \end{array}$$

- A. 43 C. 47
 B. 49 D. 45

4) The area model below shows $\frac{1}{2} \times \frac{3}{4}$. What fraction is shaded (overlap region)?



- A. $\frac{3}{8}$ C. $\frac{2}{8}$
 B. $\frac{3}{6}$ D. $\frac{1}{2}$



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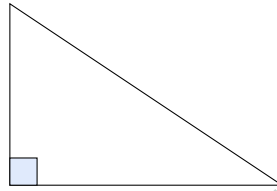
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1) Which expression is “half of the sum of 12 and 8”?

A. $\frac{1}{2} \times 12 + 8$
 B. $\frac{12 + 8}{2}$

C. $12 + \frac{8}{2}$
 D. $\frac{12}{2} + 8$

2) Look at the triangle. One angle is marked with a small square. What does this symbol mean?



- A. The side is very long
 B. The angle is exactly 90 degrees

- C. The triangle is isosceles
 D. The triangle is equilateral

3) Estimate $\frac{11}{12} - \frac{1}{8}$ using 0, $\frac{1}{2}$, and 1 benchmarks.

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 Hawaii scores.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(5.MD.C.5a)** Compute each volume: $P = 5 \times 4 \times 6 = 120$; $Q = 10 \times 3 \times 5 = 150$; $R = 8 \times 6 \times 2 = 96$; $S = 4 \times 4 \times 6 = 96$. Only R and S have the same volume (96 cubic units).
- 2) **Choice D is correct.** **(5.NF.B.5b)** A, B, and D each equal 5. C gives $\frac{11}{4} \times 2 = \frac{11}{2} = 5\frac{1}{2}$, which is between 5 and 6.
- 3) **Choice B is correct.** **(5.NF.B.5b)** The bottom side connects (1, 2) and (5, 2), which are on the same horizontal line. The length is $5 - 1 = 4$ units.
- 4) **The correct answer is 132 cm³.** **(5.MD.C.5c)** The expression multiplies each prism's three dimensions, then adds the volumes. The values are 72 and 60, for a total of 132 cubic centimeters. Accept any equivalent expression that finds both prism volumes and adds them, and accept the numeric answer 132 cm³.
- 5) **The correct answer is 13.** **(5.G.B.4)** The rectangles are also parallelograms, so add both regions: $8 + 5 = 13$.
- 6) **Choice B is correct.** **(5.G.A.2)** For each point: $2/2 = 1$, $4/2 = 2$, $6/2 = 3$, $8/2 = 4$. The y -value is half the x -value.
- 7) **Choice B is correct.** **(5.NF.A.1)** Subtract: $5 - 2\frac{1}{4} = 2\frac{3}{4}$.
- 8) **Choice B is correct.** **(5.NF.A.1)** When dividing by 10, each digit moves to a place with one-tenth the value, so 640 becomes 64.
- 9) **Choice D is correct.** **(5.MD.C.3b)** A cube that is 1 meter on each edge is 100 centimeters on each edge. It would have 100 layers, with $100 \times 100 = 10,000$ cubic centimeters in each layer. So $10,000 \times 100 = 1,000,000$ cubic centimeters.
- 10) **Choice C is correct.** **(5.NF.B.7c)** Use total amount divided by the size of one piece. The equation is $5 \div \frac{1}{8} = n$.
- 11) **Choice D is correct.** **(5.NF.B.7c)** Since $\frac{5}{4}$ is greater than 1, multiplying 12 by $\frac{5}{4}$ makes a product greater than 12. The other fractions shown are less than 1, so their products are less than 12.
- 12) **Choice C is correct.** **(5.G.A.2)** The first coordinate, 4, matches the x -axis label: hours. The second coordinate, 32, matches the y -axis label: bouquets arranged. So the point means bouquets arranged is 32 when hours is 4.
- 13) **Choice C is correct.** **(5.NBT.B.7)** C is correct because $2.45 + 2.55 = 5.00$. A and B each equal 4.90, and D equals 5.01.
- 14) **Choice D is correct.** **(5.NBT.B.7)** Borrow 1 from 3: $2\frac{11}{9} - 1\frac{7}{9} = 1\frac{4}{9}$.
- 15) **The correct answer is 340.** **(5.NF.A.1)** Multiplying by 100 moves the decimal point two places to the right: $3.4 \rightarrow 340$.
- 16) **Choice D is correct.** **(5.NBT.A.2)** The difference of 15 and 7 is the grouped part (15 - 7). "Twice" means multiply that difference by 2.
- 17) **Choice A is correct.** **(5.OA.A.2)** First count the table legs: $8 \times 4 = 32$. Then find the chairs left: $10 - 2 = 8$. Altogether, $32 + 8 = 40$.
- 18) **Choice A is correct.** **(5.OA.A.1)** Common denominator is 35: $\frac{3}{5} = \frac{21}{35}$ and $\frac{2}{7} = \frac{10}{35}$. Since $21 > 10$, oil is more.
- 19) **Choice D is correct.** **(5.OA.B.3)** Each term is half the previous: $8 \div 2 = 4$.
- 20) **Choices A, B are correct.** **(5.OA.B.3)** Every square is a rectangle, and every rectangle is a parallelogram. Choices C and D reverse or overstate the hierarchy.
- 21) **Choice B is correct.** **(5.MD.C.5)** The base area is 32 square centimeters. Since $96 \div 32 = 3$, the block is 3 cm tall.
- 22) **Choice B is correct.** **(5.MD.C.5)** $\text{LCM}(9,6) = 18$. $\frac{1}{9} = \frac{2}{18}$ and $\frac{1}{6} = \frac{3}{18}$. $\frac{2}{18} + \frac{3}{18} = \frac{5}{18}$.
- 23) **Choice D is correct.** **(5.NF.A.1)** $\frac{5}{16}$ is not equivalent to $\frac{1}{3}$ because $1 \times 16 \neq 3 \times 5$. The other choices simplify to $\frac{1}{3}$.
- 24) **Choice D is correct.** **(5.NF.A.2)** At 80: 3 marks, At 90: 3 marks, At 100: 2 marks. Total: $3 + 3 + 2 = 8$ students scored 80 or higher.
- 25) **Choice A is correct.** **(5.OA.A.2)** The grouped multiplication 6×8 is the product. The 5+ means Kelly is adding 5 to that product.
- 26) **Choice C is correct.** **(5.OA.A.2)** $\frac{10^5}{10^3} = 10^2 = 100$ times larger.
- 27) **Choice C is correct.** **(5.NBT.A.2)** $4 \div \frac{1}{5} = 4 \times 5 = 20$. We can make 20 packages.
- 28) **Choice B is correct.** **(5.NBT.B.7)** $6.4 \div 2 = 3.2$, which is between 3 and 4.
- 29) **Choice A is correct.** **(5.NBT.B.7)** The diagram shows $78.5 \div 100 = 0.785$. Move decimal 2 places left.



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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Aligned to Standards



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