

9

Pennsylvania

PSSA

GRADE 5 MATHEMATICS PRACTICE TESTS

Full-Length Standards-Aligned Practice
for Strong Math Performance

$$A = l \times w$$

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

$$y = 2x + 1$$



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



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

$$7.2 \div 0.8 = 9$$



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



Build Confidence



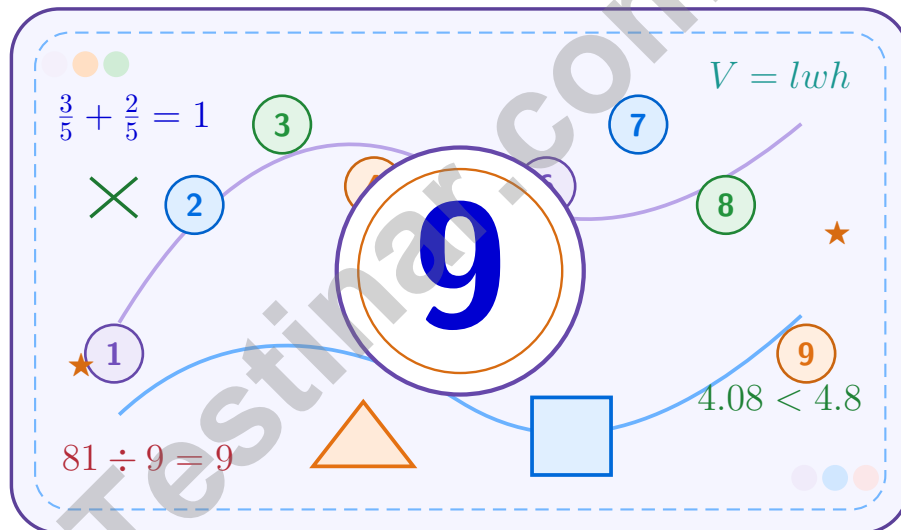
Improve Math Skills



Achieve Success

9 Pennsylvania PSSA 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 Pennsylvania PSSA. 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



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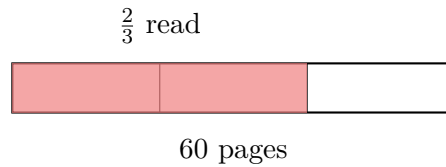
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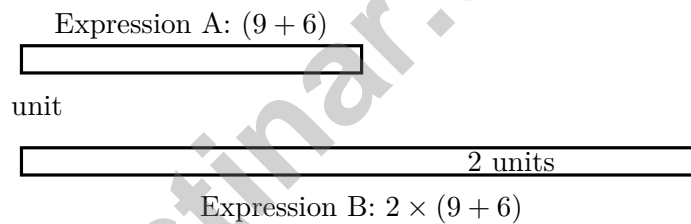
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- 1) A book has 60 pages. If you read $\frac{2}{3}$ of the book, how many pages have you read?



- A. 20 pages C. 40 pages
 B. 30 pages D. 50 pages
- 2) A runner's time is 42.567 seconds. Round to the nearest hundredth for a record.
- A. 42.5 sec C. 42.57 sec
 B. 42.56 sec D. 42.6 sec
- 3) Two tape diagrams show expressions side-by-side. Which comparison is correct?



- A. A is 2 more than B C. A equals B
 B. A is 2 times B D. B is twice A
- 4) A store stacks 6 identical rectangular boxes. Each box measures 3 meters by 3 meters by 3 meters. What is the total volume of all the boxes?
- A. 27 cubic meters C. 162 cubic meters
 B. 33 cubic meters D. 189 cubic meters



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1) Pattern: $9 \times 10 = 90$; $9 \times 100 = 900$; $9 \times 1,000 = 9,000$. How many zeros are in the product $9 \times 1,000,000$?

A. 4

B. 5

C. 6

D. 7

2) Find: $\frac{1}{6} \div 3$.

Record your answer in the space provided.

3) Which shows the correct place-value shift for 42×10 ?

Hundreds	Tens	Ones	Result
4	2	0	420

A. The 4 stays in hundreds, 2 moves to tens

B. The 4 and 2 both move left one place, 0 fills ones

C. The 4 stays in tens, 2 stays in ones, 0 fills hundreds

D. All digits shift right by one place

4) A water tank holds 50 liters. A leak drains $\frac{3}{10}$ of the water. How many liters are drained?

A. 5 liters

B. 10 liters

C. 35 liters

D. 15 liters



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 Pennsylvania scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice A is correct.** **(CC.2.3.5.A.2)** If $816 \div 17 = 48$, then 408 (half of 816) divided by 17 gives half the quotient: $408 \div 17 = 24$.
- The correct answer is 42000000.** **(CC.2.3.5.A.2)** Multiplying by a power of 10 shifts the value to a larger place. Attach six zeros to 42: 42,000,000. This confirms the answer.
- Choice B is correct.** **(1.5.B)** Use total amount divided by the size of one piece. The equation is $10 \div \frac{1}{2} = n$.
- Choice D is correct.** **(CC.2.4.5.A.5)** Prism 1: $2 \times 3 \times 4 = 24$. Prism 2: $1 \times 5 \times 4 = 20$. Prism 3: $3 \times 2 \times 5 = 30$. From smallest to largest, the volumes are 20, 24, 30, so the order is 2, 1, 3.
- Choice A is correct.** **(CC.2.1.5.B.1)** Both fractions in choice A are very small, so their sum is close to 0. The other choices are much closer to $\frac{3}{4}$, 1, or 2.
- Choice C is correct.** **(CC.2.1.5.B.1)** Volume = $30 \times 20 \times 4 = 600 \times 4 = 2400 \text{ m}^3$.
- Choice C is correct.** **(CC.2.4.5.A.5)** Making one-tenth (dividing by 10): $2.4 \div 10 = 0.24$ cups of flour.
- Choice D is correct.** **(1.5.B)** Start with one unit fraction, $\frac{1}{9}$, and share it into 3 equal parts. Each part is $\frac{1}{9} \div 3 = \frac{1}{27}$ of the whole.
- Choice A is correct.** **(CC.2.3.5.A.1)** The base area is 56 square centimeters. Since $336 \div 56 = 6$, the water is 6 cm deep.
- Choice D is correct.** **(CC.2.3.5.A.1)** The first coordinate, 6, matches the x-axis label: minutes. The second coordinate, 72, matches the y-axis label: cookies baked. So the point means cookies baked is 72 when minutes is 6.
- The correct answer is 120.** **(CC.2.4.5.A.5)** Use the rectangular-prism formula $V = l \times w \times h$. Multiply $8 \times 5 \times 3 = 120$ cubic units.
- Choice D is correct.** **(CC.2.4.5.A.5)** $0.5 \div 10,000$ moves the decimal four places left, giving 0.00005.
- Choice D is correct.** **(1.5.B)** For each point, multiply the first coordinate by 4: $1 \times 4 = 4$, $2 \times 4 = 8$, and $3 \times 4 = 12$.
- Choice D is correct.** **(CC.2.4.5.A.4)** Total: $(8 \times 2) + (10 \times 3) + (12 \times 3) + (14 \times 2) = 16 + 30 + 36 + 28 = 110$ goals.
- Choice C is correct.** **(CC.2.4.5.A.4)** $\frac{2}{3} \times \frac{9}{10} = \frac{18}{30}$, which simplifies to $\frac{3}{5}$ meter.
- Choice A is correct.** **(CC.2.2.5.A.1)** Begin with the innermost operation: $2 \times 3 = 6$. That makes the braces $\{4+6\} = 10$, so the full expression is $30 - 10 = 20$.
- Choice A is correct.** **(CC.2.2.5.A.1)** $50.00 - 23.64 = 26.36$. Borrow across zeros from tens place.
- Choice A is correct.** **(CC.2.1.5.B.1)** Each liter has four quarter-liter servings. $6 \div \frac{1}{4} = 6 \times 4 = 24$ families.
- Choice D is correct.** **(CC.2.4.5.A.4)** The divisor is the whole sum $2+3$, so it needs parentheses. That gives $10 \div (2+3)$.
- Choice A is correct.** **(CC.2.2.5.A.1)** 85 out of 100 squares shaded represents $\frac{85}{100} = 0.85$.
- Choice B is correct.** **(CC.2.1.5.C.1)** $7\frac{1}{2} - 3\frac{1}{2} = (7 - 3) + (\frac{1}{2} - \frac{1}{2}) = 4 + 0 = 4 \text{ m}$.
- Choices A, C are correct.** **(CC.2.1.5.C.1)** A is true because $20 + 1$ creates one extra group of 5. C is true because $100 - 1$ creates one fewer group of 9 than 100 groups. B changes the grouping, and D is equal rather than greater.
- Choice D is correct.** **(CC.2.1.5.B.1)** Subtract: $4.92 - 1.67 = 3.25$. Check: $3.25 + 1.67 = 4.92$.
- Choice C is correct.** **(CC.2.1.5.B.1)** Since 1 pound = 16 ounces, multiply 5 by 16: $5 \times 16 = 80$ ounces.
- Choice A is correct.** **(CC.2.3.5.A.1)** Dividing each term in Sequence 1 by 5 gives Sequence 2: $5 \div 5 = 1$, $10 \div 5 = 2$, $15 \div 5 = 3$, etc.
- The correct answer is 9.** **(CC.2.1.5.B.1)** Use place-value reasoning to keep the decimal in the correct place. Multiply both by 10: $72 \div 8 = 9$. This confirms the answer.
- Choice B is correct.** **(CC.2.1.5.B.1)** LCM(2,5) = 10. $\frac{1}{2} = \frac{5}{10}$ and $\frac{1}{5} = \frac{2}{10}$. $\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$ mile.
- The correct answer is 9348.** **(CC.2.1.5.B.1)** $246 \times 8 = 1,968$ and $246 \times 30 = 7,380$. Sum: $1,968 + 7,380 = 9,348$.
- Choice B is correct.** **(CC.2.1.5.B.1)** Both points have the same x-coordinate (1), forming a vertical line. The distance is $9 - 5 = 4$ units.
- Choice D is correct.** **(1.5.B)** A power of 10 tells how many factors of 10 to use. $36 \div 10 = 3.6$. This confirms the answer.



Personal Trainer Wrap-Up

Math Athlete, Listen Up!

◇ 9 practice tests done. That's serious training. Your math muscles are strong, your endurance is high, and your reflexes (recognizing problem types) are quick. You're in great shape for the big test. ◇

★ **Trainer's wisdom:** muscle memory is real, even in math. The more you do something, the more your brain knows how to do it without thinking. You've built that muscle memory over 9 tests. Now it's automatic. ★

Athlete's Performance Card

- **Endurance:** TOP-TIER! You can finish a long test without burnout.
- **Strength:** STRONG! You handle multi-step problems with power.
- **Speed:** SHARP! You move efficiently from question to question.
- **Recovery:** GREAT! You bounce back fast from tough questions.

Trainer's tip: on test day, hydrate, breathe deeply, and warm up with the easier questions first. Build your rhythm. Your training will carry you the rest of the way.

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 Trainer (You're In Great Shape)

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**

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- ✓ Rigorous.
- ✓ Results-Driven.

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Build Confidence

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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



Created by Educators



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