

4

COMPLETE

Virginia SOL

Grade

MATH

5

PRACTICE TESTS

Standards-Based Test Prep with
Mixed Review, Word Problems,
and **Full Answer Key**



- ✓ **4 COMPLETE PRACTICE TESTS**
Built to reflect the test format and rigor



- ✓ **COVERS ALL ESSENTIAL TOPICS**
Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more



- ✓ **STRENGTHEN SKILLS & CONFIDENCE**
Mixed review, challenging questions, and strategic practice



- ✓ **FULL ANSWER KEY INCLUDED**
Detailed explanations for every question



BUILD STRONG
MATH SKILLS
& TEST READINESS



IMPROVE ACCURACY,
SPEED, AND
PROBLEM SOLVING



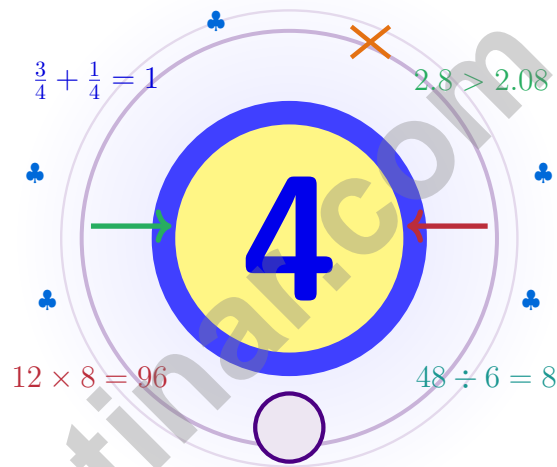
PERFECT FOR
CLASSROOM,
HOME, OR
SELF-STUDY



ALIGNED TO
VIRGINIA
STATE STANDARDS
(SOL)

4 Virginia SOL Grade 5 Math Practice Tests

Four chances to read carefully, solve smartly, and grow stronger



Four full tests, a smart quick review, mission-style strategy pages, and student-tested support that help Grade 5 mathematicians from The Old Dominion build calm, careful, confident habits.

Jay Daie and Reza Nazari



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Hello, Virginia – Four Tests, Four Wins

Four chances to grow your math mind one careful step at a time

Virginia Grade 5: This Mission Is for You

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math is like the Blue Ridge Parkway – the careful drive rewards every curve with a wider view.

You do not need to feel perfect before you begin. You just need to stay curious, use strategies, and learn from every correction. That is how confident mathematicians are built.

Spot Clues

Notice what the problem shows, says, and asks.

Build a Plan

Choose a strategy and work through it step by step.

Bounce Back

Let mistakes show you exactly what to practice next.

A strong mission habit for Virginia: keep your work neat, estimate when it helps, label units carefully, and never let one hard question decide your mood for the whole page.

Four Tests, One Routine

A four-step routine that turns practice into real improvement

Step 1: Power Up

Start with the quick review.

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Take the Test

Work through one full practice test.

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Decode Mistakes

Check your work honestly.

Circle missed questions, sort out what went sideways, and notice which skills are calling for attention.

Step 4: Bring the Lesson Forward

Repair, reflect, and retry.

Read the explanation, fix the work, and carry that lesson into the very next test.

A Four-Week Virginia Mission Map

Week	Mission Focus
Week 1	Take Test 1 like the first mile on the parkway.
Week 2	Take Test 2 and lift word problems and clear writing.
Week 3	Take Test 3 to polish fractions, decimals, and conversions.
Week 4	Take Test 4 with calm, careful, confident driving.



Scan me

Test-Style Practice

What these four practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Old Dominion for the Virginia SOL with the steady focus of a long drive home. The goal is bigger than collecting right answers. Students are practicing how to read carefully, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every day.

Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, crossing out weak choices, and checking for reasonableness can save time and points.

Constructed-Response Questions

Students show steps, explain a method, or support an answer with clear math. Strong reasoning matters because it shows how the answer was found.

Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- tables, line plots, patterns, and coordinate points
- geometry and multi-step real-world problem solving

What strong SOL-style work looks like: accurate math, readable steps, the right labels or units, and a final answer that really matches the question being asked.



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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

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



1) Error analysis: Jon reads 2.04 as “two and four tenths”. What is the correct reading?

- A. Two and four hundredths C. Two and four tenths
 B. Two point four D. Two and forty tenths



2) All corners are right angles

Based on the right-angle marks, name ALL categories this shape belongs to.

- A. Quadrilateral and Rectangle only C. Rectangle and Trapezoid only
 B. Quadrilateral, Parallelogram, and Rectangle D. Quadrilateral and Trapezoid only
- 3) A farmer uses $\frac{2}{3}$ of a field for crops, $\frac{1}{9}$ for livestock pasture. Remaining for paths?
- A. $\frac{1}{9}$ C. $\frac{4}{9}$
 B. $\frac{2}{9}$ D. $\frac{7}{9}$
- 4) A movie is 2.45 hours long. The middle scene lasts 1.25 hours. How long is the rest of the movie?
- A. 0.50 hours C. 0.20 hours
 B. 1.20 hours D. 1.30 hours
- 5) The output is double the input, then 1 less. For input 6, what is the output?
- A. 10 C. 13
 B. 12 D. 11



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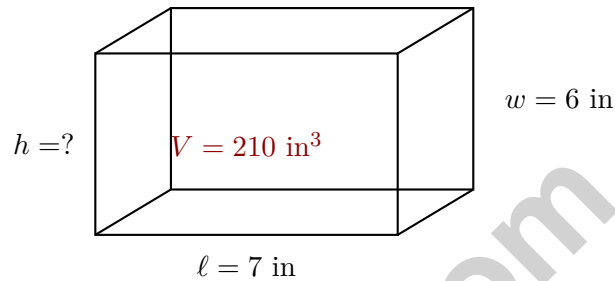


1) A bird feed mixture is $\frac{3}{10}$ sunflower seeds and $\frac{2}{10}$ millet. What fraction of the mixture is made of other seeds?

- A. $\frac{1}{10}$
 B. $\frac{3}{10}$

- C. $\frac{5}{10}$
 D. $\frac{7}{10}$

2) Find the height.



- A. 4 in
 B. 5 in

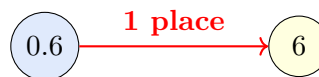
- C. 6 in
 D. 7 in

3) A science kit box measures 6 meters long, 7 meters wide, and 7 meters tall. What is its volume?

- A. 42 cubic meters
 B. 49 cubic meters

- C. 20 cubic meters
 D. 294 cubic meters

4) Decimal movement diagram: 0.6 moves to 6 after multiplying by what power of 10?



Multiply by?

- A. 10
 B. 100

- C. 1
 D. 10^2



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1) A rectangular prism has volume 300 cm^3 , length 15 cm, and width 5 cm. Find the height.

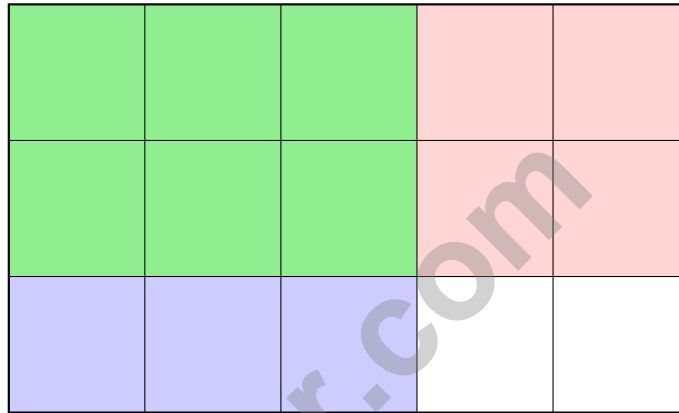
A. 2 cm

C. 4 cm

B. 3 cm

D. 5 cm

2) The rectangle model shows the overlapping shaded region for $\frac{3}{5} \times \frac{2}{3}$. What fraction of the whole rectangle is overlapped?



A. $\frac{6}{15} = \frac{2}{5}$

C. $\frac{2}{3}$

B. $\frac{3}{5}$

D. $\frac{15}{6}$

3) Which two decimals are equivalent?

A. 0.205 and 0.25

C. 0.750 and 0.75

B. 0.302 and 0.32

D. 0.601 and 0.61

4) Convert: 5 pounds = ? ounces.

Record your answer in the space provided.



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1) A store sells apples at \$2 each and oranges at \$1 each. Which expression models: buying 6 apples and 9 oranges and getting a \$3 discount?

A. $6 \times 2 + 9 \times 1 - 3$

B. $(6 + 9) \times 2 - 3$

C. $6 \times 2 + 9 + 3$

D. $6 \times (2 + 9) \times 1 - 3$

2) What is $14.80 - 6.37$?

A. 7.95

B. 9.20

C. 8.52

D. 8.43

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

Record your answer in the space provided.

4) Evaluate: $56 - (7 \times 4) + 18 \div 3$

A. 30

B. 32

C. 34

D. 36

5) Subtract: $5\frac{1}{6} - 2\frac{5}{6}$ (requires borrowing).

A. $2\frac{1}{6}$

B. $2\frac{2}{6}$

C. $3\frac{1}{6}$

D. $2\frac{4}{6}$

6) A water tank holds 250 liters. It currently has 165.5 liters. How many more liters are needed to fill the tank completely?

A. 74.5 liters

B. 94.5 liters

C. 84.5 liters

D. 104.5 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 scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(5.NS.2)** In 2.04, the 0 holds the tenths place and the 4 is in the hundredths place. So the correct reading is “two and four hundredths.”
- 2) **Choice B is correct.** **(5.MG.3)** A rectangle is a quadrilateral (4 sides), a parallelogram (2 pairs of parallel sides), and a rectangle (all right angles). Trapezoid does not apply.
- 3) **Choice B is correct.** **(5.CE.2)** Convert $\frac{2}{3} = \frac{6}{9}$. Crops and livestock: $\frac{6}{9} + \frac{1}{9} = \frac{7}{9}$. Paths: $1 - \frac{7}{9} = \frac{2}{9}$.
- 4) **Choice B is correct.** **(5.CE.1)** Subtract the scene time from the total time: $2.45 - 1.25 = 1.20$. The rest of the movie lasts 1.20 hours.
- 5) **Choice D is correct.** **(5.MG.1)** Substitute $x = 6$ into the rule. First double 6 to get 12, then subtract 1: $12 - 1 = 11$.
- 6) **Choice A is correct.** **(5.MG.2)** Multiply: $61 \times 14 = 61 \times (10 + 4) = (61 \times 10) + (61 \times 4) = 610 + 244 = 854$ notebooks.
- 7) **Choice D is correct.** **(5.CE.2)** Start with one unit fraction, $\frac{1}{5}$, and share it into 5 equal parts. Each part is $\frac{1}{5} \div 5 = \frac{1}{25}$ of the whole.
- 8) **The correct answer is 84 cubic feet.** **(5.NS.2)** Subtract the known part from the total: $210 - 126 = 84$ cubic feet. That is the missing part’s volume.
- 9) **Choice C is correct.** **(5.CE.2)** Multiples of 6: 6, 12, 18, 24, . . . Multiples of 8: 8, 16, 24, . . . The first common one is 24.
- 10) **The correct answer is $33\frac{3}{4}$ in.** **(5.PS.1)** $2(5\frac{1}{4}) + 1(5\frac{1}{2}) + 3(5\frac{3}{4}) = 10\frac{1}{2} + 5\frac{1}{2} + 17\frac{1}{4} = 33\frac{3}{4}$ in.
- 11) **Choice B is correct.** **(5.NS.2)** $5,200 \div 100 = 52$. Marcus only divided by 10; Kevin divided by 1,000; Aisha did not divide.
- 12) **Choice C is correct.** **(5.MG.1)** A swimming pool is very large. Cubic meters is an appropriate unit. Cubic millimeters and centimeters are too small; cubic inches are also small.
- 13) **Choice D is correct.** **(5.MG.2)** $V = 12 \times 6 \times 2 = 72 \times 2 = 144 \text{ cm}^3$.
- 14) **Choice D is correct.** **(5.MG.1)** Check: (1, 7) gives $4(1) + 3 = 7$ check; (2, 11) gives $4(2) + 3 = 11$ check; (3, 15) gives $4(3) + 3 = 15$ check; (4, 19) gives $4(4) + 3 = 19$ check.
- 15) **The correct answer is 4 cm.** **(5.MG.1)** The base area is $9 \times 5 = 45$ square centimeters. Divide 180 by 45 to get a height of 4 centimeters.
- 16) **Choice B is correct.** **(5.CE.2)** $3 \times \frac{4}{5} = \frac{12}{5} = 2\frac{2}{5}$ meters of ribbon.
- 17) **Choice C is correct.** **(5.CE.2)** $3 \div \frac{1}{6} = 3 \times 6 = 18$. There are 18 slices in 3 pizzas.
- 18) **Choice B is correct.** **(5.CE.2)** Grid: $5 \times 4 = 20$ cells. Shaded (2 of 4 rows, 3 of 5 columns): $2 \times 3 = 6$ cells. Answer: $\frac{6}{20} = \frac{3}{10}$.
- 19) **Choice B is correct.** **(5.MG.2)** The base area is $10 \times 8 = 80$ square inches. Since $800 \div 80 = 10$, the height is 10 inches.
- 20) **Choice A is correct.** **(5.CE.4)** “Three times 4” becomes 3×4 . The phrase asks for the sum of 15 and that product, so use $15 + 3 \times 4$.
- 21) **Choice B is correct.** **(5.NS.2)** $28 \times 10^4 = 28 \times 10000 = 280000$ dollars.
- 22) **Choices A, B are correct.** **(5.NS.2)** $0.4 \times 100 = 40$ and $7.2 \times 10 = 72$. C should be 0.5, and D should be 180.
- 23) **Choice A is correct.** **(5.CE.2)** LCD = 15. $\frac{4}{5} = \frac{12}{15}$; $\frac{2}{3} = \frac{10}{15}$; $\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$.
- 24) **Choice A is correct.** **(5.CE.2)** $\frac{1}{5} \div 3 = \frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$.
- 25) **Choice D is correct.** **(5.NS.2)** Multiplying by 1,000 moves the decimal three places right, so 1.99 becomes 1,990.
- 26) **The correct answer is 2.5.** **(5.MG.1)** $2,500 \div 1,000 = 2.5$ kg. Since 1,000 grams make 1 kilogram, divide by 1,000.
- 27) **Choice B is correct.** **(5.NS.1)** $\frac{2}{3}$ is close to $\frac{1}{2}$, and $\frac{1}{8}$ is close to 0. So $\frac{2}{3} - \frac{1}{8} \approx \frac{1}{2} - 0 = \frac{1}{2}$.
- 28) **Choice C is correct.** **(5.CE.2)** $\frac{4}{3} \approx 1.33$, which is between 1 and 2. So $18 \times \frac{4}{3}$ is between $18 \times 1 = 18$ and $18 \times 2 = 36$.
- 29) **Choice D is correct.** **(5.CE.1)** $1,248 \div 24 = 52$ crates. Check: $24 \times 52 = 1,248$.
- 30) **Choice D is correct.** **(5.PFA.1)** At step 4, $W = 12$ and $X = 4$. The sum is $12 + 4 = 16$.
- 31) **The correct answer is 9.** **(5.MG.1)** The known width and height make groups of $5 \times 4 = 20$ cubic inches. Since $180 \div 20 = 9$, the length is 9 in.



Case Closed: Success Ahead

Greetings, Math Detective!

◇ Outstanding investigation! You've cracked the code on 4 complete practice tests, examining every clue and solving every mathematical mystery like a brilliant detective! Each problem was a puzzle, and you methodically gathered evidence, analyzed patterns, and reached accurate conclusions. That analytical thinking you've developed will serve you well on test day and beyond! ◇

★ **Here's what master detectives know:** not every case solves itself immediately. Sometimes you need to examine the evidence from different angles, try various approaches, and remain persistent until you crack the code. You've practiced exactly that through these 4 tests! Your investigative skills have sharpened considerably, and you're ready to solve any mathematical mystery that comes your way! ★

Detective's Case File: Your Skills

- **Clue Collection:** You gather all important information from problems before solving!
- **Pattern Recognition:** You identify mathematical patterns like a trained investigator!
- **Evidence Analysis:** You evaluate which strategies work best for each problem type!
- **Case Resolution:** You stay focused until you've found the correct solution!

Detective wisdom: the best investigators take notes about their methods so they can solve similar cases faster in the future. Your brain has been doing exactly that throughout these 4 tests, storing successful strategies in your mental filing cabinet. On test day, you'll be able to retrieve those proven methods instantly!

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 Detective Coach

4 COMPLETE TESTS. CONFIDENCE. SUCCESS.



Give your child the practice and confidence they need to excel in **Grade 5 Math**. This book includes **4 full-length** practice tests designed to build skills, improve test readiness, and help students reach their full potential.

WHAT'S INSIDE:



4 COMPLETE PRACTICE TESTS

Full-length tests that reflect real test format and rigor.



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BUILD CONFIDENCE & IMPROVE SCORES

Practice consistently, reduce test anxiety, and achieve your best score!



PRACTICE SMART. LEARN MORE. ACHIEVE YOUR BEST.



Strengthen
Math Skills



Improve
Accuracy
& Speed



Master
Essential
Concepts



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