

# 6 Virginia SOL

## GRADE 4 MATH PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



**MASTER KEY MATH CONCEPTS**  
**BUILD CONFIDENCE FOR TEST DAY**

**INCLUDES COMPREHENSIVE ANSWER KEY**  
**ALIGNED STATE STANDARDS**

# 6 Virginia SOL Grade 4 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Six complete 30-question Grade 4 practice rounds for SOL, built around blue ridge views, historic roads, and clear thinking habits, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, Virginia Math Explorer!

Six steady rounds on the Old Dominion math route

This book gives you six full Grade 4 practice tests for SOL. Each round uses blue ridge views, historic roads, and clear thinking habits to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## Virginia Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

# How to Use This Book

A ten-session routine for Virginia SOL review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Old Dominion math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Six tests, 180 questions, and a full SOL review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 4–6	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



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For more practice  
& answers

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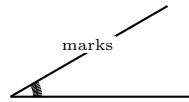
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- 1) An art supply store has 5 paintbrush sets. It has 3 times as many markers as paintbrush sets. It also has 2 times as many colored pencils as markers. How many colored pencils does the store have?
- A. 10                                       C. 25  
 B. 15                                       D. 30
- 2) Which quadrilateral has four equal sides and four right angles?
- A. Rectangle                                       C. Square  
 B. Rhombus                                       D. Trapezoid
- 3) What is  $6,001 - 2,345$ ?
- A. 3,656                                       C. 4,656  
 B. 3,756                                       D. 3,556
- 4) A movie theater sold 4,032 tickets over 6 days. If the same number of tickets was sold each day, how many tickets were sold per day?
- A. 672                                       C. 662  
 B. 682                                       D. 652
- 5) All of the following figures have at least one line of symmetry **except** which one?
- A. An equilateral triangle                                       C. A slanted parallelogram with unequal adjacent sides  
 B. A rectangle                                       D. An isosceles triangle



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6)



This angle is marked from  $0^\circ$  to  $30^\circ$ . How many one-degree angles does the angle contain?

- A. 29 one-degree angles       C. 31 one-degree angles  
 B. 30 one-degree angles       D. 60 one-degree angles

7) Two perpendicular lines:

- A. Never meet       C. Are always the same length  
 B. Meet at a  $90^\circ$  angle       D. Form a straight angle

8) At the farmers market, Noah's apple weighs 0.22 kg and Lin's apple weighs 0.27 kg. Whose apple is heavier?

- A. Noah's apple (0.22 kg)       D. Cannot tell without more information  
 B. Lin's apple (0.27 kg)  
 C. Both apples weigh the same

9) Ivy has  $4\frac{4}{5}$  meters of string. After using some, she has  $1\frac{2}{5}$  meters left. How much string did she use?

- A.  $2\frac{2}{5}$  meters       C.  $3\frac{3}{5}$  meters  
 B.  $3\frac{2}{5}$  meters       D.  $3\frac{4}{5}$  meters

10) How many degrees is a half turn around a circle?

- A.  $90^\circ$        C.  $270^\circ$   
 B.  $180^\circ$        D.  $360^\circ$

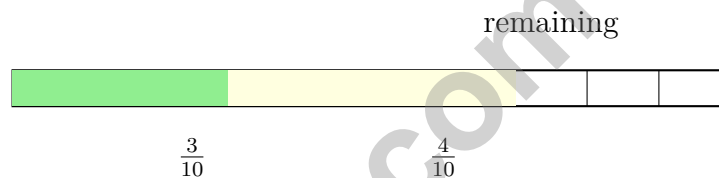


11) Is 56 a multiple of 8?

- A. Sometimes                       C. Cannot tell  
 B. No                                       D. Yes

12) Write  $2\frac{5}{6}$  as an improper fraction.

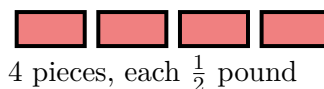
13)



A garden bed uses  $\frac{3}{10}$  for vegetables and  $\frac{4}{10}$  for flowers. The rest will be herbs. What fraction is for herbs?

- A.  $\frac{3}{10}$                                        C.  $\frac{1}{10}$   
 B.  $\frac{7}{10}$                                        D.  $\frac{6}{10}$

14)



Each piece above weighs  $\frac{1}{2}$  pound. What is the total weight of all 4 pieces?



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1) Estimate first, then find the exact answer:  $48,765 + 31,234 = ?$

A. 79,999

C. 79,899

B. 80,000

D. 80,099

2) A room is 15 feet long and 12 feet wide. What is the area of the floor?

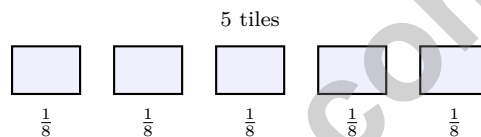
A. 27 sq ft

C. 180 sq ft

B. 54 sq ft

D. 120 sq ft

3) A model shows 5 unit-fraction tiles. Each tile is  $\frac{1}{8}$ . What is the total?



A.  $\frac{1}{8}$

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

B.  $\frac{3}{8}$

D.  $\frac{10}{8}$

4) A clock hand rotates from 12 o'clock to 3 o'clock (a  $90^\circ$  rotation), then continues to rotate an additional  $45^\circ$ . What is the total angle of rotation?



5) A digit has a value of 7,000. What is the place value of this digit?

- A. Hundreds  C. Tens  
 B. Ones  D. Thousands

6) Which statement about a square and a regular hexagon is true?

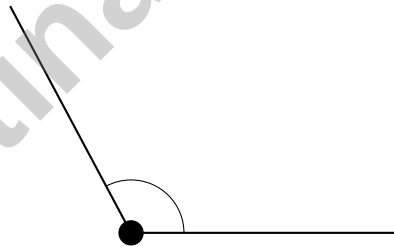
- A. Both have 4 lines of symmetry  D. A hexagon has fewer lines than a square  
 B. Both have 6 lines of symmetry  
 C. They have different numbers of lines of symmetry

7) A function rule is “divide by 2.” Complete the table:

Input	4	8	12	20
Output	2	4	6	?

- A. 8  C. 12  
 B. 15  D. 10

8)



This angle is bigger than a right angle. What is it called?

- A. Acute  C. Obtuse  
 B. Right  D. Straight



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4) A rectangle's width is 7 feet. Its length is 2 times as long as its width. What is the length?

A. 5 feet

C. 3.5 feet

B. 9 feet

D. 14 feet

5) How many factor pairs does 20 have?

A. 2

C. 4

B. 5

D. 3

6) Which expression is NOT equal to 2?

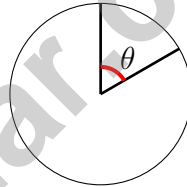
A.  $4 \times \frac{1}{2}$

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

B.  $6 \times \frac{1}{3}$

D.  $5 \times \frac{1}{2}$

7)



What is the measure of angle  $\theta$  shown in the diagram?

A.  $30^\circ$

C.  $60^\circ$

B.  $45^\circ$

D.  $90^\circ$

8) Sam has  $1\frac{2}{4}$  yards of red ribbon and  $2\frac{1}{4}$  yards of blue ribbon. How many yards of ribbon does Sam have in total?

A.  $2\frac{3}{4}$  yards

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

B.  $3\frac{2}{4}$  yards

D.  $4\frac{1}{4}$  yards



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& answers

## Practice Test Answer Keys

**How to use this section with a Grade 4 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice D is correct.** (4.PFA.1) Build it in two steps. Step 1: markers =  $5 \times 3 = 15$ . Step 2: colored pencils are 2 times the markers, so  $15 \times 2 = 30$  colored pencils.
- Choice C is correct.** (4.MG.4) A square combines two key properties: four equal sides (like a rhombus) and four right angles (like a rectangle). This makes a square a special quadrilateral. The answer is C.
- Choice A is correct.** (4.NS.1) Subtracting from 6,001 requires regrouping across the two middle zeros. Ones:  $1 < 5$ , borrow from the tens—but the tens and hundreds are both 0, so borrow chains all the way to the thousands ( $6 \rightarrow 5$ ). The two 0s become 9s; the ones becomes 11. Now:  $11 - 5 = 6$ ,  $9 - 4 = 5$ ,  $9 - 3 = 6$ ,  $5 - 2 = 3$ . Result: **3,656**. ✓
- Choice A is correct.** (4.NS.1) Divide:  $40 \div 6 = 6$  r4, bring down the 3 to get  $43 \div 6 = 7$  r1, bring down the 2 to get  $12 \div 6 = 2$ . Each day they sold **672** tickets.
- Choice C is correct.** (4.MG.4) A slanted parallelogram leans to one side and has different side lengths next to each other. Unlike the equilateral triangle (3 lines), rectangle (2 lines), and isosceles triangle (1 line), this shape has zero symmetry. The answer is A slanted parallelogram with unequal adjacent sides.
- Choice B is correct.** (4.MG.4) The angle is marked from  $0^\circ$  to  $30^\circ$ , so it contains **30** one-degree angles.
- Choice B is correct.** (4.MG.4) Perpendicular lines are special because they always cross at exactly  $90^\circ$  — a perfect right angle. That little square symbol shows you where they meet.
- Choice B is correct.** (4.CE.3) The tenths place is the same for both (2 tenths). Compare the hundredths:  $7 > 2$ , so  $0.27 > 0.22$ . Lin's apple is heavier.
- Choice B is correct.** (4.NS.1) Subtract the wholes:  $4 - 1 = 3$ . Subtract the fractions:  $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$ . She used  **$3\frac{2}{5}$**  meters.
- Choice B is correct.** (4.MG.4) A half turn is  $\frac{1}{2}$  of the full circle:  $\frac{1}{2} \times 360^\circ = \mathbf{180^\circ}$ .
- Choice D is correct.** (4.NS.1) To check if 56 is a multiple of 8, divide:  $56 \div 8 = 7$  exactly (no remainder). Since  $8 \times 7 = 56$ , yes—56 is a multiple of 8.
- The correct answer is  $\frac{17}{6}$ .** (4.NS.1) Two wholes need  $2 \times 6 = 12$  sixths. Add the  $\frac{5}{6}$  part:  $12 + 5 = 17$ , so  $2\frac{5}{6} = \frac{17}{6}$ . ✓
- Choice A is correct.** (4.NS.1) The garden bed is divided into sections shown in the picture. Step 1: Add the vegetables and flowers:  $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$ . Step 2: The rest is herbs:  $\frac{10}{10} - \frac{7}{10} = \frac{3}{10}$ .
- The correct answer is 2.** (4.CE.3) All 4 pieces, each weighing  $\frac{1}{2}$  pound, weigh  $4 \times \frac{1}{2} = \frac{4}{2} = 2$  pounds total.
- Choice D is correct.** (4.CE.1) Three steps! Step 1: Ava's total:  $8 \times 12 = 96$  pages. Step 2: Noah's total:  $10 \times 9 = 90$  pages. Step 3: "how many more" is a subtraction:  $96 - 90 = 6$  pages.
- Choice A is correct.** (4.CE.3) For  $3 \times \frac{1}{4}$ , we need 3 copies of  $\frac{1}{4}$ , which equals  $\frac{3}{4}$ . Picture A shows one whole divided into 4 parts with 3 parts shaded. This is Picture A.
- Choice C is correct.** (4.NS.1) To reach  $\frac{6}{10}$  with hops of  $\frac{1}{10}$ , we count: each hop is one unit fraction, and we need 6 copies to equal  $\frac{6}{10}$ . So **6** hops gets us there!
- The correct answer is B, D.** (4.MG.2) Check each option. A: 2 pounds = 32 ounces, not 48 oz. B: 2 kg = 2,000 g, correct! C: 64 ounces = 4 pounds, not 3 pounds. D: 500 g = 0.5 kg, correct! E: 5 pounds = 80 ounces, not 90 oz. The correct answers are **B** and **D**.
- Choice C is correct.** (4.CE.3) Count the shaded parts: 4 parts are shaded. Count the equal parts: 5 total parts. So the shaded fraction is  $4 \times \frac{1}{5} = \frac{4}{5}$ .
- Choice A is correct.** (4.NS.5) All fractions have denominator 12, so compare numerators:  $3 < 5 < 7$ . The order from least to greatest is  $\frac{3}{12}, \frac{5}{12}, \frac{7}{12}$ .
- Choice A is correct.** (4.CE.3) Count the occurrences:  $\frac{1}{4}$  oz appears 3 times (the most!),  $\frac{2}{4}$  oz once, and  $\frac{3}{4}$  oz once. So  $\frac{1}{4}$  oz has the tallest stack.
- Choice A is correct.** (4.NS.1) Two angles together make  $\frac{10}{12}$  of a straight angle. One is  $\frac{4}{12}$ . The other:  $10 - 4 = 6$  twelfths, or  $\frac{6}{12}$ .
- Choice B is correct.** (4.MG.3) Distance around the room =  $2(12) + 2(8) = 24 + 16 = 40$  m.
- The correct answer is 0.5.** (4.CE.3) Fifty hundredths equals 0.5.



## Hi, Brave Explorer!

◇ What a trip! You explored 6 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 6 tests, you learned a lot. You are a stronger math explorer now. ★

### Your Explorer Tools

- **Map Reading:** You read problems carefully.
- **Trail Skills:** You take steps in the right order.
- **Backpack:** You have many math tools.
- **Brave Heart:** You explore even hard problems.

**Explorer tip:** on test day, use the tools you packed. You have the skills. You are ready!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Trail Guide

# PRACTICE TODAY, SUCCEED TOMORROW!

This **Grade 4 Math Practice Tests** book is the perfect tool to help students strengthen their math skills, master important concepts, and build confidence for test success.

With 6 full-length practice tests, a variety of question types, and detailed answer explanations, students get the review and practice they need to improve accuracy, develop critical thinking, and achieve their best.

Ideal for classroom use, homework, test preparation, and extra practice at home.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Confidence Building

★ **CONFIDENCE IN MATH.  
SUCCESS FOR LIFE.**

## WHAT STUDENTS WILL GAIN



### Stronger Math Skills

Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Test Confidence

Become familiar with test-style questions and formats.



### Track Progress

Measure growth across multiple practice tests.



### Master Key Concepts

Reinforce important skills aligned with grade-level standards.



### Prepare for Success

Build the confidence needed to do your best on test day.

## TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
- ✓ Decimals
- ✓ Geometry & Measurement
- ✓ Perimeter & Area
- ✓ Data, Graphs & Line Plots
- ✓ Patterns & Algebraic Thinking
- ✓ And More!



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