

# 9

$$256 \div 8 = 32$$



$$48 \times 7 = 336$$

# Virginia SOL

## GRADE 4

# MATH

## PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



**9 FULL-LENGTH  
PRACTICE TESTS**



**STANDARDS-ALIGNED  
REVIEW**



**MIXED PRACTICE  
BUILD SKILLS & CONFIDENCE**



**ANSWER KEY  
FOR ALL TESTS**



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



$$725 - 358 = 367$$

PREPARE  
**PRACTICE**  
SUCCEED  
PERFORM

**PRACTICE TODAY.  
SUCCEED TOMORROW.**

# 9 Virginia SOL Grade 4 Math Practice Tests

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



Nine 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!

Nine steady rounds on the Old Dominion math route

This book gives you nine 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?

Nine tests, 270 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 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

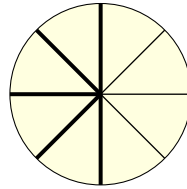
The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



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For more practice  
& answers

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Pie divided into eighths

1)

James eats  $\frac{1}{8}$  of a pie each day. How much of the pie does he eat in 5 days?

 A.  $\frac{1}{40}$  of the pie C.  $\frac{5}{40}$  of the pie B.  $\frac{5}{8}$  of the pie D.  $\frac{6}{8}$  of the pie

2) A garden plot needs  $\frac{6}{4}$  bags of soil. The gardener already has  $\frac{2}{4}$  bags. How many more bags are needed?

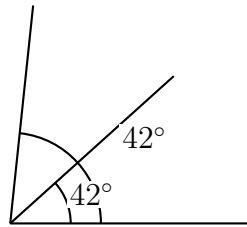
 A.  $\frac{4}{4}$  C.  $\frac{2}{4}$  B.  $\frac{8}{4}$  D.  $\frac{1}{4}$ 

3) A pet store has 8 goldfish. It has 6 times as many guppies as goldfish. How many more guppies than goldfish does the store have?

 A. 48 C. 6 B. 14 D. 40

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- 4) Two rays meet at a vertex, forming an angle. The angle is divided into two equal parts by another ray. If each part measures  $42^\circ$ , what is the total angle measure?



- A.  $42^\circ$ 
 C.  $21^\circ$   
 B.  $84^\circ$ 
 D.  $90^\circ$

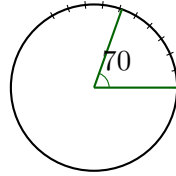
- 5) 2  
3 times as many ?

Elena has 2 books. Her friend has 3 times as many books. How many books does her friend have?

- A. 5
  C. 8  
 B. 12
  D. 6
- 6) A recipe needs 1 kilogram 200 grams of flour. Ollie measures out 800 grams. How many more grams does he need?
- A. 200 g
  C. 1,000 g  
 B. 400 g
  D. 1,200 g

7) Which shows the error in this student work? The student said  $\frac{1}{4} + \frac{1}{4} = \frac{2}{8}$ .

- A. Should not add fractions with same denominators
- B. Adding the numerators and denominators separately (mistake)
- C. The correct answer is  $\frac{2}{4}$ , not  $\frac{2}{8}$
- D. Cannot add fractions at all



8)

The angle shown measures 70 degrees. How many one-degree angles is this?

- A. 35 one-degree angles
- B. 70 one-degree angles
- C. 140 one-degree angles
- D. 7 one-degree angles

9) Round 5,196 to the nearest ten.

- A. 5,190
- B. 5,100
- C. 5,196
- D. 5,200

10) In the number 8,888, the value of the digit 8 in the thousands place is how many times the value of the digit 8 in the tens place?

- A. 100
- B. 10 times greater
- C. 100 times greater
- D. 10 times less



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1) Find  $4,368 \div 8$ .

2) What is  $\frac{45}{100}$  as a decimal?

A. 4.5

C. 0.045

B. 0.45

D. 45.0

3) A fraction bar for  $\frac{5}{8}$  has how many shaded parts?

4) A class did two separate measurements: Batch A has values  $\frac{2}{8}$ ,  $\frac{3}{8}$ ,  $\frac{1}{8}$ . Batch B has values  $\frac{3}{8}$ ,  $\frac{5}{8}$ . What is the difference between the sum of Batch B and sum of Batch A?

A. 0

C.  $\frac{2}{8}$

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

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

5) A pot has 8 cups of soup. Two friends share the soup equally. How many cups does each person get?

A. 2 cups

C. 6 cups

B. 4 cups

D. 8 cups



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1) Is 23 prime or composite?

- A. It depends  C. Neither  
 B. Composite  D. Prime

2) A party favor bag holds  $\frac{1}{6}$  pound of candy. If you prepare 8 bags, how much candy is used in total?

- A.  $\frac{1}{48}$  pound  C.  $\frac{8}{48}$  pound  
 B.  $\frac{8}{6}$  pounds (or  $1\frac{1}{3}$  pounds)  D.  $\frac{6}{8}$  pound

3)  $\frac{8}{12} = \frac{5}{12} + \underline{\hspace{1cm}}$ . The missing fraction is:

- A.  $\frac{1}{12}$   C.  $\frac{3}{12}$   
 B.  $\frac{2}{12}$   D.  $\frac{4}{12}$

4) What is  $4 \times \frac{2}{5}$ ?

- A.  $\frac{4}{5}$   C.  $\frac{8}{20}$   
 B.  $\frac{6}{5}$   D.  $\frac{8}{5}$

5) What is  $4,205 \div 5$ ?

- A. 841  C. 821  
 B. 831  D. 851

6) In the number 2,222, which 2 has the greatest value?

- A. The 2 in the ones place  C. The 2 in the hundreds place  
 B. The 2 in the tens place  D. The 2 in the thousands place



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7) A student folds a piece of paper creating a crease. The angle on one side of the crease is  $67^\circ$ . If the total angle formed is  $134^\circ$ , what is the angle on the other side?

A.  $67^\circ$

C.  $201^\circ$

B.  $68^\circ$

D.  $134^\circ$

8) A rectangular yard is 20 feet long and 15 feet wide. How much fencing is needed to go around it?

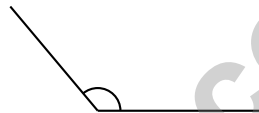
A. 35 ft

C. 300 ft

B. 70 ft

D. 140 ft

9) Use a protractor to measure the angle below. Write the degree measure.



10) Order these decimals from least to greatest: 0.72, 0.27, 0.70, 0.07.

A. 0.07, 0.27, 0.70, 0.72

C. 0.27, 0.07, 0.70, 0.72

B. 0.72, 0.70, 0.27, 0.07

D. 0.07, 0.70, 0.27, 0.72

11) Which comparison symbol is correct?

A.  $\frac{1}{5} > \frac{1}{3}$

C.  $\frac{1}{5} = \frac{1}{3}$

B.  $\frac{1}{5} < \frac{1}{3}$

D.  $\frac{5}{1} < \frac{3}{1}$



## 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 B is correct.** (4.CE.3) James eats  $\frac{1}{8}$  of the pie each day for 5 days. We multiply:  $5 \times \frac{1}{8} = \frac{5}{8}$  of the pie.
- Choice A is correct.** (4.NS.1) The gardener needs soil but already has some. Find how much more is needed by subtracting what he has from what's needed:  $\frac{6}{4} - \frac{2}{4} = \frac{4}{4}$  more bags of soil are needed.
- Choice D is correct.** (4.PFA.1) Step 1: find the guppies:  $8 \times 6 = 48$ . Step 2: "how many *more*" is a subtraction:  $48 - 8 = 40$ . The store has **40** more guppies than goldfish.
- Choice B is correct.** (4.CE.1) The diagram shows the angle divided into two equal parts by a ray. Add them:  $42^\circ + 42^\circ = 84^\circ$ .
- Choice D is correct.** (4.MG.2) The bar model shows the friend's bar split into 3 equal pieces, each the size of Elena's 2 books. So we multiply:  $3 \times 2 = 6$  books.
- Choice B is correct.** (4.MG.2) Convert the total needed:  $1 \text{ kg } 200 \text{ g} = 1,200 \text{ g}$ . Ollie has 800 g. Subtract:  $1,200 - 800 = 400 \text{ g}$ . He needs **400** grams more.
- Choice B is correct.** (4.CE.3) When adding fourths, the denominator stays the same!  $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$ , not  $\frac{2}{8}$ . The student mistakenly added the denominators.
- Choice B is correct.** (4.MG.4) The angle shown measures  $70^\circ$ , made from **70** one-degree angles.
- Choice D is correct.** (4.NS.1) We're rounding to the nearest ten. Look at the ones digit: 6. Since  $6 \geq 5$ , we round UP! The tens digit goes from 9 to 10—a rollover! So the answer is **5,200**. ✓
- Choice C is correct.** (4.NS.1) Step 1: name the values. The 8 in thousands is worth 8,000; the 8 in tens is worth 80. Step 2: divide to compare:  $8,000 \div 80 = 100$ . The thousands 8 is **100** times greater than the tens 8. *Why 100?* Two places to the left = two factors of 10, and  $10 \times 10 = 100$ . ✓
- Choice B is correct.** (4.CE.3) The marks divide the line: W is at 0.25 and X is at 0.50. Since 0.45 falls between these two values, it's in the region between W and X.
- The correct answer is 2.** (4.CE.3) Zoe drinks  $\frac{2}{5}$  liter each day for 5 days. Multiply:  $5 \times \frac{2}{5} = \frac{5 \times 2}{5} = \frac{10}{5} = 2$  liters. The answer is **2** liters.
- Choice D is correct.** (4.NS.1) The garden has 5 equal rows, and plants are in 3 of them. So the fraction with plants is  $\frac{3}{5}$ , which breaks into unit fractions:  $\frac{3}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$ .
- Choice C is correct.** (4.CE.3) The tenths bar shows 2 tenths =  $\frac{20}{100}$ . The hundredths grid shows 15 hundredths. Adding:  $\frac{20}{100} + \frac{15}{100} = \frac{35}{100}$ .
- Choice B is correct.** (4.CE.3) The numerator 3 tells us how many unit fractions we have, and the denominator 4 tells us the unit fraction is  $\frac{1}{4}$ . So  $\frac{3}{4}$  equals  $3 \times \frac{1}{4}$ .
- The correct answer is B, D.** (4.NS.1) B and D are correct: B's expanded form equals the number, and D correctly spells out the word form. A, C, and E have place-value or comparison errors ✓
- Choice A is correct.** (4.CE.3) This number line zooms in from 0.30 to 0.40, counting by hundredths. The dot lands on 0.38.
- Choice A is correct.** (4.MG.2) Since 1 meter = 100 centimeters, divide:  $1,200 \div 100 = 12$  meters. The answer is **12** meters.
- Choice C is correct.** (4.NS.1) Subtract the wholes:  $4 - 2 = 2$ . Subtract the fractions:  $\frac{5}{6} - \frac{1}{6} = \frac{4}{6}$ . The difference is  **$2\frac{4}{6}$** .
- Choice B is correct.** (4.NS.1) The path started at  $\frac{10}{12}$  meter. Rain washed away  $\frac{4}{12}$  meter. What's left:  $10 - 4 = 6$  twelfths, or  $\frac{6}{12}$  meter.
- Choice D is correct.** (4.MG.4) A straight angle is formed when two rays point in exactly opposite directions, making a straight line.
- Choice C is correct.** (4.NS.1) Factor pairs of 32:  $1 \times 32$ ,  $2 \times 16$ ,  $4 \times 8$ . That gives factors 1, 2, 4, 8, 16, 32—count them up: **6** factors.
- Choice A is correct.** (4.NS.1) Ask:  $8 \times ? = 360$ . Since  $8 \times 45 = 360$ , we need **45** vans for all the students.
- Choice D is correct.** (4.NS.5) The denominator changes from 5 to 20. Divide:  $20 \div 5 = 4$ . So multiply the numerator by 4:  $4 \times 4 = 16$ .



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Math Detective at Work

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## Hi, Math Detective!

◇ You did such a great job! You finished 9 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

### Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

**Detective tip:** on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

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 Detective Helper

# PRACTICE TODAY. ACHIEVE TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students strengthen essential math skills, build confidence, and develop the problem-solving abilities needed for classroom success and test readiness.

With 9 full-length practice tests, students gain repeated exposure to important Grade 4 concepts while learning how to approach questions with accuracy, confidence, and strong mathematical thinking.

Whether used at home, in the classroom, or for independent review, this book provides meaningful practice that helps students grow stronger with every test.

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- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement

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SUCCESS FOR LIFE.

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### Test Confidence

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- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
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- ✓ Perimeter & Area
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