

# 8

# North Carolina

# EOG

# GRADE 4

# PRACTICE TESTS



$2 \times 3 = 6$

3

1

5

$2 \times 3 = 6$

2

4



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

**COMPREHENSIVE  
TEST PREP**

Includes Solutions

# 8 North Carolina EOG Grade 4 Math Practice Tests

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



Eight complete 30-question Grade 4 practice rounds for EOG, built around mountain ridges, coastal maps, and balanced math choices, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, North Carolina Math Explorer!

Eight steady rounds on the Tar Heel State math route

This book gives you eight full Grade 4 practice tests for EOG. Each round uses mountain ridges, coastal maps, and balanced math choices to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## North Carolina 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 North Carolina EOG 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 Tar Heel State 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?

Eight tests, 240 questions, and a full EOG 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 6–8	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.



Scan me!  
For more practice  
& answers

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1) Which expression correctly shows  $2,961 \div 9$  with quotient and remainder?

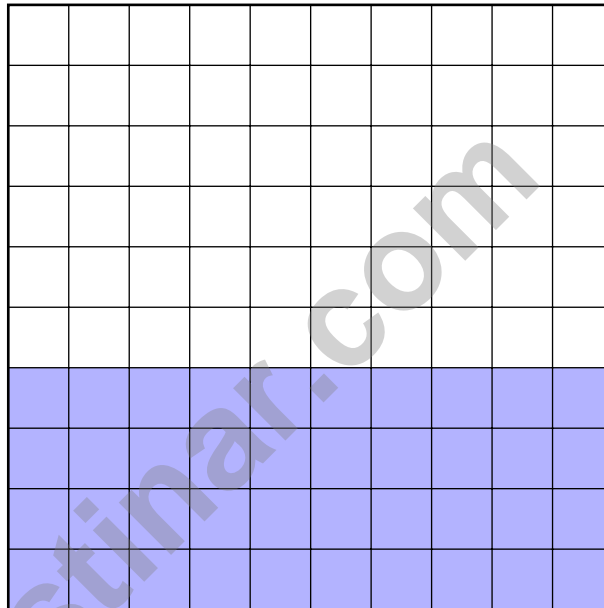
A. 329 r1

C. 328 r9

B. 330 r1

D. 329 r0

2) Look at the grid below. The shaded squares represent a fraction.



Which fraction and decimal both represent the shaded amount?

A.  $\frac{4}{10}$  and 0.04

C.  $\frac{4}{100}$  and 0.4

B.  $\frac{40}{100}$  and 0.4

D.  $\frac{40}{10}$  and 4.0



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- 3) Sophia runs laps on a track. Each lap is  $\frac{1}{4}$  mile. If she completes 5 laps, how many miles does she run?
- A.  $\frac{5}{4}$  miles (or  $1\frac{1}{4}$  miles)       C.  $\frac{5}{20}$  mile  
 B.  $\frac{1}{20}$  mile       D. 5 miles
- 4) A store has 96 ounces of dried apples to pack into bags of 8 ounces each. How many bags are needed?
- A. 8 bags       C. 88 bags  
 B. 12 bags       D. 104 bags
- 5) What is  $24 \times 36$ ?
- A. 84       C. 864  
 B. 144       D. 924
- 6) Which equation shows that 24 is 6 times as many as 4?
- A.  $24 + 4 = 28$        C.  $24 = 6 \times 4$   
 B.  $24 - 4 = 20$        D.  $24 \div 4 = 9$

Kilometers to Meters			

- 7) km: 1 m: 1,000 km: 7 m: ?

Using the chart, if 1 kilometer = 1,000 meters, then 7 kilometers = ? meters.

- A. 700 m       C. 70,000 m  
 B. 7,000 m       D. 700,000 m



8) Convert  $4\frac{2}{3}$  to an improper fraction.

- A.  $\frac{14}{3}$
- B.  $\frac{12}{3}$

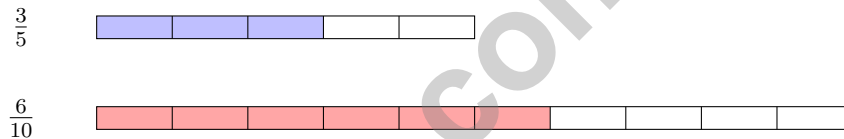
- C.  $\frac{10}{3}$
- D.  $\frac{15}{3}$

9) Compare: 7,249 rounded to the nearest hundred vs. 7,251 rounded to the nearest hundred.

- A. Both round to 7,200
- B. Both round to 7,300

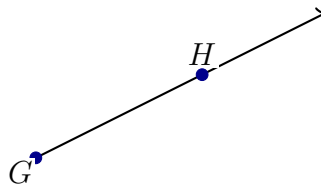
- C. 7,249 → 7,200 and 7,251 → 7,300
- D. 7,249 → 7,300 and 7,251 → 7,200

10) Two fraction bars are shown below. Both have the same amount shaded. What is true about the denominators?



- A. The denominators are the same
- B.  $\frac{3}{5}$  has a larger denominator
- C.  $\frac{6}{10}$  has a larger denominator
- D. The fractions are not equivalent

11) Which statement about Ray  $GH$  is correct?

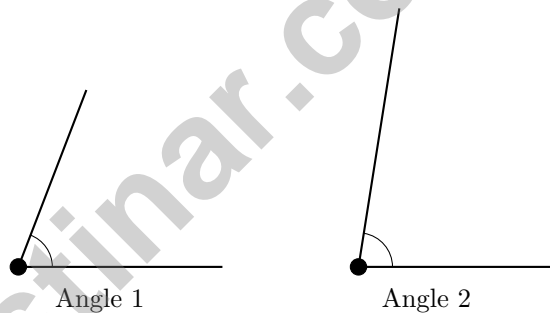


- A. The ray ends at point  $H$
- B. The ray extends in both directions
- C. The ray starts at  $G$  and continues forever
- D. The ray stops between  $G$  and  $H$



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& answers

- 1) A fish tank requires 3 liters of water per day to stay clean. How many liters are needed for 5 days?
- A. 8 L                                       C. 2 L  
 B. 15 L                                       D. 3 L
- 2) Three students timed their sprints. Riley: 0.47 seconds. Jordan: 0.74 seconds. Casey: 0.44 seconds. Who was fastest (smallest time)?
- A. Riley (0.47 s)                               C. Casey (0.44 s)  
 B. Jordan (0.74 s)                               D. Riley and Jordan tied
- 3) Two angles are shown below:



Which angle is wider?

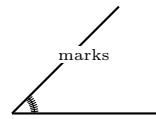
- A. Angle 1                                       C. They are equal  
 B. Angle 2                                       D. Cannot tell



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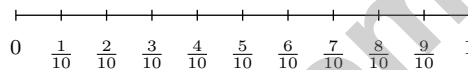
1)



The angle opens from  $0^\circ$  to  $45^\circ$ . What is its measure?

 A.  $45^\circ$ 
 C.  $46^\circ$ 
 B.  $50^\circ$ 
 D.  $90^\circ$ 

2) On a number line below, mark the position you reach after making 8 jumps of  $\frac{1}{10}$  from 0.


 A.  $\frac{1}{10}$ 
 C.  $\frac{9}{10}$ 
 B.  $\frac{8}{10}$ 
 D. 1

3) A bottle contains 2 liters of water. A second bottle contains  $1\frac{1}{2}$  liters. How many liters are there altogether?

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

 C.  $3\frac{1}{2}$  L

 B. 3 L

 D. 4 L

4) Write a fraction that is equivalent to  $\frac{1}{4}$ .



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& answers

5) A pattern starts at 50 and follows the rule “subtract 5.” Which list shows the first four terms?

- A. 50, 45, 40, 35  
 B. 50, 55, 60, 65  
 C. 50, 45, 40, 30  
 D. 50, 40, 30, 20

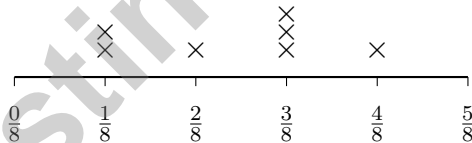
6) Sam has 3 cookies. Each cookie is  $\frac{2}{3}$  of a cup of flour. How much flour is in all of Sam’s cookies?

- A.  $\frac{6}{3}$  cup or 2 cups  
 B.  $\frac{2}{9}$  cup  
 C.  $\frac{3}{2}$  cup  
 D.  $\frac{2}{3}$  cup

7) A school gym has 14 benches. Each bench seats 35 people. How many people can sit on all the benches?

- A. 490 people  
 B. 420 people  
 C. 560 people  
 D. 630 people

8) Here is a line plot showing sticker lengths (in inches):



What is the difference in inches between the longest and shortest stickers?

- A.  $\frac{1}{8}$  inch  
 B.  $\frac{2}{8}$  inch  
 C.  $\frac{3}{8}$  inch  
 D.  $\frac{4}{8}$  inch



## 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.** (NC.4.NBT.6) Use long division:  $2 \div 9 = 0$  r2, bring down the 9 to get  $29 \div 9 = 3$  r2, bring down the 6 to get  $26 \div 9 = 2$  r8, bring down the 1 to get  $81 \div 9 = 9$ . The quotient is **329** with no remainder.
- Choice B is correct.** (NC.4.NF.3) The grid shows 40 shaded squares out of 100 total. This is  $\frac{40}{100} = \frac{4}{10} = 0.4$ .
- Choice A is correct.** (NC.4.NF.4) Sophia completes 5 laps, each  $\frac{1}{4}$  mile long. She runs  $5 \times \frac{1}{4} = \frac{5}{4}$  miles total.
- Choice B is correct.** (NC.4.MD.2) There are 96 ounces of dried apples. Each bag holds 8 ounces. Divide:  $96 \div 8 = 12$  bags. He needs **12** bags.
- Choice C is correct.** (NC.4.NBT.5) Break  $24 \times 36$  into parts:  $24 \times (30 + 6) = 24 \times 30 + 24 \times 6 = 720 + 144 = \mathbf{864}$ .
- Choice C is correct.** (NC.4.OA.1) When you see “times as many,” think *multiplication!* “6 times as many as 4” becomes  $6 \times 4$ , which equals 24. So choice C,  $24 = 6 \times 4$ , is the equation that captures that idea.
- Choice B is correct.** (NC.4.MD.2) Since 1 kilometer = 1,000 meters, multiply:  $7 \times 1,000 = 7,000$  m. The answer is **7,000** m.
- Choice A is correct.** (NC.4.NF.3) Multiply the whole by the denominator:  $4 \times 3 = 12$ . Add the numerator:  $12 + 2 = 14$ . The result is  $\frac{14}{3}$ .
- Choice C is correct.** (NC.4.NBT.1) For 7,249: tens digit is  $4 < 5$ , round DOWN to 7,200 ✓. For 7,251: tens digit is  $5 \geq 5$ , round UP to 7,300 ✓. A small change (two digits) flips the rounding!
- Choice C is correct.** (NC.4.NF.1) The bars show the same shaded length, so  $\frac{3}{5} = \frac{6}{10}$  (equivalent). Since  $10 > 5$ , the second denominator is larger.
- Choice C is correct.** (NC.4.G.1) A ray always starts at a specific point — in this case  $G$  — and stretches on and on forever in one direction, passing through  $H$  along the way.
- Choice B is correct.** (NC.4.NBT.1) Each array shows a factor pair multiplied. Check the products:  $4 \times 6 = 24$  ✓;  $5 \times 5 = 25$  (not 24!);  $3 \times 8 = 24$  ✓;  $2 \times 12 = 24$  ✓. So choice B is the array that does *not* match a factor pair of 24.
- The correct answer is 1.** (NC.4.NF.4) Six sixths:  $6 \times \frac{1}{6} = \frac{6}{6} = 1$ .
- Choice A is correct.** (NC.4.MD.6) The angle spans between two rays in the lower portion of the circle, measuring **30°**.
- The correct answer is B, C.** (NC.4.NBT.1) Starting with a positive whole number: subtracting 5, subtracting 10, or dividing by 4 makes it smaller. Adding 3 or multiplying by 2 makes it larger. Increasing rules: B and C. ✓
- Choice A is correct.** (NC.4.NF.3) The circle picture shows a pie cut into 4 equal slices. Step 1: Two slices are shown:  $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$ . Step 2: The remaining slices:  $\frac{4}{4} - \frac{2}{4} = \frac{2}{4}$ .
- The correct answer is 3.** (NC.4.MD.8) Count how many times 1 inch (which is  $\frac{2}{2}$  inch) appears in our measurements: 1, 1, 1 = **3** times.
- Choice A is correct.** (NC.4.NF.3) One whole is  $\frac{6}{6}$ , plus  $\frac{1}{6}$  more:  $6 + 1 = 7$ , so  $\frac{6}{6} + \frac{1}{6} = \frac{7}{6} = 1\frac{1}{6}$  ✓.
- Choice B is correct.** (NC.4.MD.3) Using  $P = 2\ell + 2w = 42$  with  $\ell = 12$ :  $2(12) + 2w = 42$ . Simplify:  $24 + 2w = 42$ , so  $2w = 18$ , thus  $w = 9$  in.
- Choice A is correct.** (NC.4.NF.3) Compare tenths:  $5 > 3$ . Among the two with tenths = 5, compare hundredths:  $5 > 3$ , so  $0.55 > 0.53$ . Among the two with tenths = 3, compare hundredths:  $5 > 3$ , so  $0.35 > 0.33$ .
- Choice C is correct.** (NC.4.NF.3) 0.5 is five tenths:  $0.5 = \frac{5}{10}$ . This is the correct equation.
- Choice C is correct.** (NC.4.G.2) A right triangle is identified by its one right angle, which measures exactly 90 degrees. The other two angles must be acute. The answer is C.
- Choice D is correct.** (NC.4.NF.3) 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 D is correct.** (NC.4.NBT.1) Check each number: 1,945 has 9 in the hundreds place (worth 900). The other options have 9 in different places. Answer: **1,945**. ✓
- The correct answer is  $\frac{7}{3}$ .** (NC.4.NF.4) When we multiply  $7 \times \frac{1}{3}$ , we get 7 copies of  $\frac{1}{3}$ . This is written as the fraction  $\frac{7}{3}$ .
- Choice C is correct.** (NC.4.OA.1) Add the three spinner sections together:  $50^\circ + 60^\circ + 70^\circ = \mathbf{180^\circ}$ .



---

Lab Notes for a Young Scientist

## Hi, Curious Scientist!

◇ 8 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

### Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

**Scientist tip:** on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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 Scientist

# 8 PRACTICE TESTS. PREPARE. PRACTICE. SUCCEED!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, master essential concepts, and boost confidence for success in the classroom and beyond.

Featuring 8 full-length practice tests, a variety of question types, and detailed answer explanations, this book provides the practice and support students need to improve accuracy, strengthen problem-solving abilities, and achieve their best.

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

## PERFECT FOR:

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

★ 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.



### Academic Success

Strengthen skills needed for future learning.

## TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Multi-Digit Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
- ✓ Geometry & Shapes
- ✓ Measurement & Data
- ✓ Perimeter & Area
- ✓ Word Problems
- ✓ Patterns & Algebraic Thinking
- ✓ Graphs & Data Interpretation
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- ✓ And More! ★



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