

# 8

# North Carolina

# EOG

## GRADE 3

# MATH

## PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



8 Full-Length  
Practice Tests



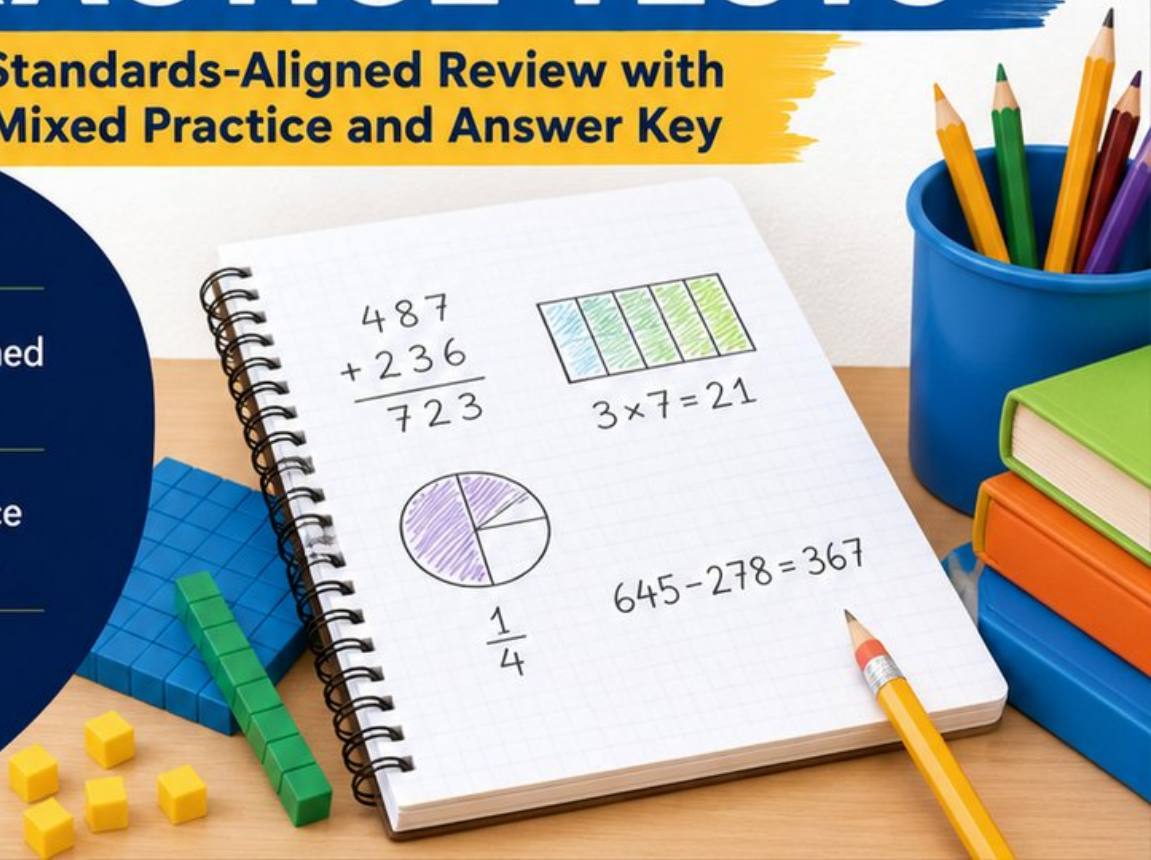
Standards-Aligned  
Questions



Build Confidence  
and Math Skills



Answer Key  
Included



# 8 North Carolina EOG Grade 3 Math Practice Tests

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



Eight complete 30-question practice rounds for Grade 3 math: operations, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# North Carolina, Your Eight-Test Math Path Begins

Eight focused rounds, one stronger Grade 3 problem solver

This book gives you eight full chances to practice like a careful test taker for the North Carolina EOG. Each test is a new route through numbers, shapes, data, measurement, and word problems. Work slowly enough to notice what the question asks, and proudly enough to show your thinking.

North Carolina has mountain trails, coastal sounds, pine forests, research labs, and active classrooms, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and match each problem with the right model.

## Your North Carolina Math Promise

I will read the whole question, choose a smart strategy, write clear work, and check whether my answer makes sense.

**Eight rounds. Thirty questions each. One careful step at a time.**

# How to Use This Book

## A simple eight-round routine for confident review

Use this North Carolina book as a practice plan, not a race. Finish one test, review it, fix a few problems, then carry one better habit into the next test.

1. **Preview the reference page.** Notice units, time, and measurement facts before you begin.
2. **Take one full test.** Circle anything that feels tricky so you can return to it.
3. **Check the answer key.** Mark correct answers and questions to try again.
4. **Read explanations.** Study missed items and lucky guesses first.
5. **Redo three problems.** Write fresh work without copying the explanation.
6. **Name one habit.** Pick a focus such as labels, facts, fractions, or neat work.
7. **Try the next test.** Bring that habit forward.
8. **Finish with a final check.** Look for growth across all eight tests.

**Best review habit:** In North Carolina, strong practice means slowing down enough to see the clue. When an answer is wrong, ask, “What step would I change next time?”



# What Is Inside the Eight Tests?

## Mixed Grade 3 math practice for the EOG

Each practice test has 30 questions. You will see multiple-choice questions, select-all questions, and open-ended questions with workspace. The mix helps students practice both choosing an answer and explaining a short mathematical result.

Part	What to Expect
Eight full tests	30 mixed Grade 3 questions in each round
Math topics	multiplication, division, place value, fractions, time, measurement, data, area, perimeter, and shapes
Answer keys	compact answer boxes for quick checking
Explanations	short reasoning for every item so mistakes become useful review
Progress pages	places to record scores, habits, and next-step goals

**North Carolina focus:** The practice path starts with mountain trails, coastal sounds, pine forests, research labs, and active classrooms. Strong math uses the same idea: know the path, follow the clues, and check the final answer.



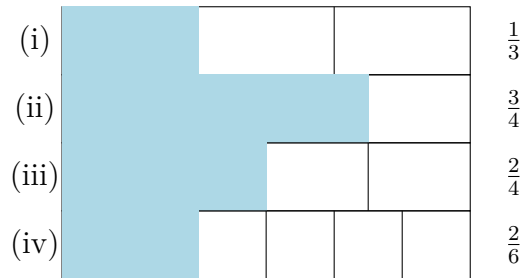
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& answers

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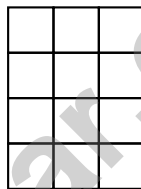


5) Look at the fraction bars below. Which pair shows equivalent fractions (same-size shaded regions)?



- |  |  |
|--|--|
| <input type="checkbox"/> A. (i) and (ii)   | <input type="checkbox"/> C. (ii) and (iii) |
| <input type="checkbox"/> B. (iii) and (iv) | <input type="checkbox"/> D. (i) and (iv)   |

6) Ava is looking at this shape made of unit squares:



How many unit squares cover this shape?

- |   |   |
|---|---|
| <input type="checkbox"/> A. 7 unit squares  | <input type="checkbox"/> C. 12 unit squares |
| <input type="checkbox"/> B. 10 unit squares | <input type="checkbox"/> D. 15 unit squares |

7) A square rug has side length 5 meters. What is its area?

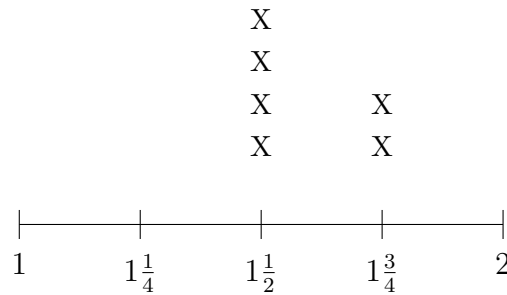
- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> A. 10 sq m | <input type="checkbox"/> C. 25 sq m |
| <input type="checkbox"/> B. 20 sq m | <input type="checkbox"/> D. 30 sq m |







- 4) Mia's line plot shows snack weights in ounces:  $1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2$ .



What is the difference between the largest and smallest numbers of X's?

- A. 1                                       C. 3  
 B. 2                                       D. 4
- 5) What fraction marks the second tick on a number line split into 6 equal parts?

- 6) A unit square can be measured in different units. A unit square measured in inches is how many square inches?
- A. 1 square inch                                       C. 4 square inches  
 B. 2 square inches                                       D. 0.5 square inches
- 7) A square room has sides of 9 units. How many unit square floor tiles are needed to cover it?
- A. 36 tiles     C. 18 tiles  
 B. 72 tiles     D. 81 tiles



1) Two numbers round to 300 when rounded to the nearest 100. Which pair could they be?

A. 250 and 350

C. 251 and 349

B. 249 and 299

D. 350 and 400

2) What is  $7 \times 90$ ?

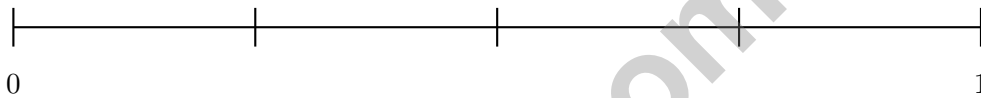
A. 63 (forgot the zero)

C. 79 (added the digits)

B. 6300 (added two zeros)

D. 630

3) On a number line from 0 to 1 split into 4 equal parts, what fraction comes after  $\frac{2}{4}$ ?



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

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

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

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

4) Ben bought 3 packs of erasers. Each pack has 8 erasers. How many erasers did Ben buy?

A.  $8 \times 3 = 24$

C.  $3 \times 3 = 9$

B.  $3 + 8 = 11$

D.  $8 + 8 = 16$

5) Write a fraction equivalent to  $\frac{1}{2}$ .



6) Let  $t$  represent the number of items left. A store has 5 boxes with 6 items in each. They sell 12 items. What is  $t$ ?

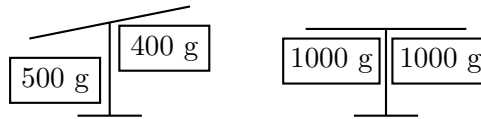
A. 18

C. 30

B. 24

D. 42

### Two Balance Scales



Scale 1

Scale 2

7)

On which scale does the left side weigh more than the right side?

A. Scale 1

C. Both scales

B. Scale 2

D. Neither scale

8) A rectangle has a length of 5 meters and a width of 2 meters. Find the area.

A. 7 sq meters

C. 14 sq meters

B. 10 sq meters

D. 25 sq meters

9) Ben saves \$7 each week. After a certain number of weeks, he has saved \$63. How many weeks did he save?

$$\square \times 7 = 63$$

A. 10

C. 7

B. 8

D. 9



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## Practice Test Answer Keys

**How to use this section with a Grade 3 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.3.NF.3) On a number line from 0 to 2, there are 8 equal parts. The fourth tick mark is at the midpoint, which is 1.
- Choice A is correct.** (NC.3.NBT.3) Numbers from 450 to 549 round to 500 when rounded to the nearest 100. So yes, any number that rounds to 500 must be at least 450.
- Choice B is correct.** (NC.3.NBT.3)  $7 \times 9 = 63$ . Think:  $7 \times 10 = 70$ , then subtract one group of 7:  $70 - 7 = 63$ . Choice C is  $7 \times 10$ ; choice A is  $7 \times 8$ .
- The correct answer is 63.** (NC.3.NBT.3) The commutative property gives  $9 \times 7 = 63$ .
- Choice D is correct.** (NC.3.NF.4) (i)  $\frac{1}{3}$  and (iv)  $\frac{2}{6}$  are equivalent because  $\frac{2}{6} = \frac{1}{3}$ . Both show one-third shaded.
- Choice C is correct.** (NC.3.MD.5) 3 columns and 4 rows:  $3 \times 4 = 12$  unit squares.
- Choice C is correct.** (NC.3.MD.7) A square with side 5 has area  $5 \times 5 = 25$  square meters.
- Choice D is correct.** (NC.3.MD.5) Top:  $4 \times 2 = 8$  sq m. Bottom left:  $2 \times 3 = 6$  sq m. Bottom right:  $2 \times 3 = 6$  sq m. Total:  $8 + 6 + 6 = 20$  sq m.
- Choice D is correct.** (NC.3.OA.1)  $8 \times 2$  means 8 groups of 2 objects each, for a total of 16 objects.
- Choice A is correct.** (NC.3.NBT.3) The first tick mark on a number line with 3 equal parts is at  $\frac{1}{3}$ .
- The correct answer is 1 inch.** (NC.3.MD.5) Range = max - min =  $8 - 7 = 1$  inch.
- Choice D is correct.** (NC.3.NF.1)  $10 \div 5 = 2$ . The picture shows 5 equal groups, each with 2 items.
- Choice C is correct.** (NC.3.NF.1) When a whole is divided into 4 equal parts, each part is called one-fourth, or  $\frac{1}{4}$ .
- Choice A is correct.** (NC.3.NBT.3) Using “make a friendly number,” rewrite 298 as  $300 - 2$ . Then:  $(300 - 2) + 145 = 300 + 145 - 2 = 445 - 2 = 443$ . This avoids regrouping in ones. Distractors show other valid decompositions but miss the “friendly number” goal.
- Choices A and C are correct.** (NC.3.OA.8) Multiply tables by chairs per table:  $9 \times 4 = 36$ . Then add:  $36 + 8 = 44$ . Choices A and C both correctly compute  $(9 \times 4) + 8 = 44$ . Choice B adds all three numbers (incorrect order). Choice D applies order of operations wrong. Choice E adds first then multiplies (wrong method).
- Choice D is correct.** (NC.3.MD.5) Area =  $9 \times 3 = 27$  square meters.
- Choice C is correct.** (NC.3.NBT.3)  $6 \times 50 = 300$  is the greatest because  $300 > 280$ ,  $300 > 240$ , and  $300 > 180$ .
- Choice B is correct.** (NC.3.G.1) A square has all the properties of a rectangle (4 sides, 4 right angles) plus the additional property of having all equal sides. So every square is a rectangle, but not every rectangle is a square.
- Choice A is correct.** (NC.3.MD.5) The equation  $3 \times (5 + 4) = (3 \times 5) + (3 \times 4)$  needs rectangles with the same width of 3.
- Choice D is correct.** (NC.3.MD.5) On a 0-to-6 number line, point A at 3 is  $\frac{3}{6}$  and point B at 5 is  $\frac{5}{6}$ .
- Choice C is correct.** (NC.3.MD.5) Shape P has area  $1 \times 7 = 7$  unit squares. Shape Q has area  $7 \times 1 = 7$  unit squares. Both equal 7.
- Choice C is correct.** (NC.3.MD.3) Pilar:  $6 \times 5 = 30$  coins. Quinn:  $4 \times 5 = 20$  coins. Difference:  $30 - 20 = 10$  coins.
- Choice D is correct.** (NC.3.OA.8) Multiply: 5 packs  $\times$  6 stickers per pack = 30 stickers.
- Choice D is correct.** (NC.3.OA.6)  $63 \div 9 = \square$  means  $\square \times 9 = 63$ . Since  $7 \times 9 = 63$ , the answer is 7.
- Choice C is correct.** (NC.3.MD.7) An even number times any other whole number is always even, because the result is a multiple of 2.
- Choice B is correct.** (NC.3.NF.1) Four equal pieces means each piece is  $\frac{1}{4}$  of the sandwich.
- Choice B is correct.** (NC.3.NF.4) Same numerator: thirds have bigger pieces than sixths. One third is greater than one sixth.
- Choice A is correct.** (NC.3.NF.3)  $\frac{6}{2}$  means 6 halves. 2 halves make 1 whole, so  $6 \div 2 = 3$  wholes. The bar is divided into 3 sections (thick lines).
- Choice C is correct.** (NC.3.NF.4) Multiply length by width:  $6 \times 3 = 18$  square units.
- The correct answer is 4.** (NC.3.OA.6) In a fact family, if  $4 \times 8 = 32$ , then  $32 \div 8 = 4$ . Multiplication and division are inverse operations.



## Hi, Math Champion!

◇ You trained hard! 8 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!

★

### Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

**Coach's tip:** the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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 Coach

# PRACTICE TODAY. MASTER TOMORROW.

This book is designed to help **Grade 3** students strengthen their math skills through focused practice and real progress.

- ✓ 8 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success



## EACH PRACTICE TEST INCLUDES:



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Aligned  
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Types



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Applications



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and Boost  
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- ✓ Measurement & Data
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- ✓ Word Problems
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