

# 3

# North Carolina

# EOG

## GRADE 3

# MATH

## PRACTICE TESTS

Standards-Aligned  
Practice for Stronger  
Math Skills and  
Test Readiness



Build Confidence  
with Targeted Practice



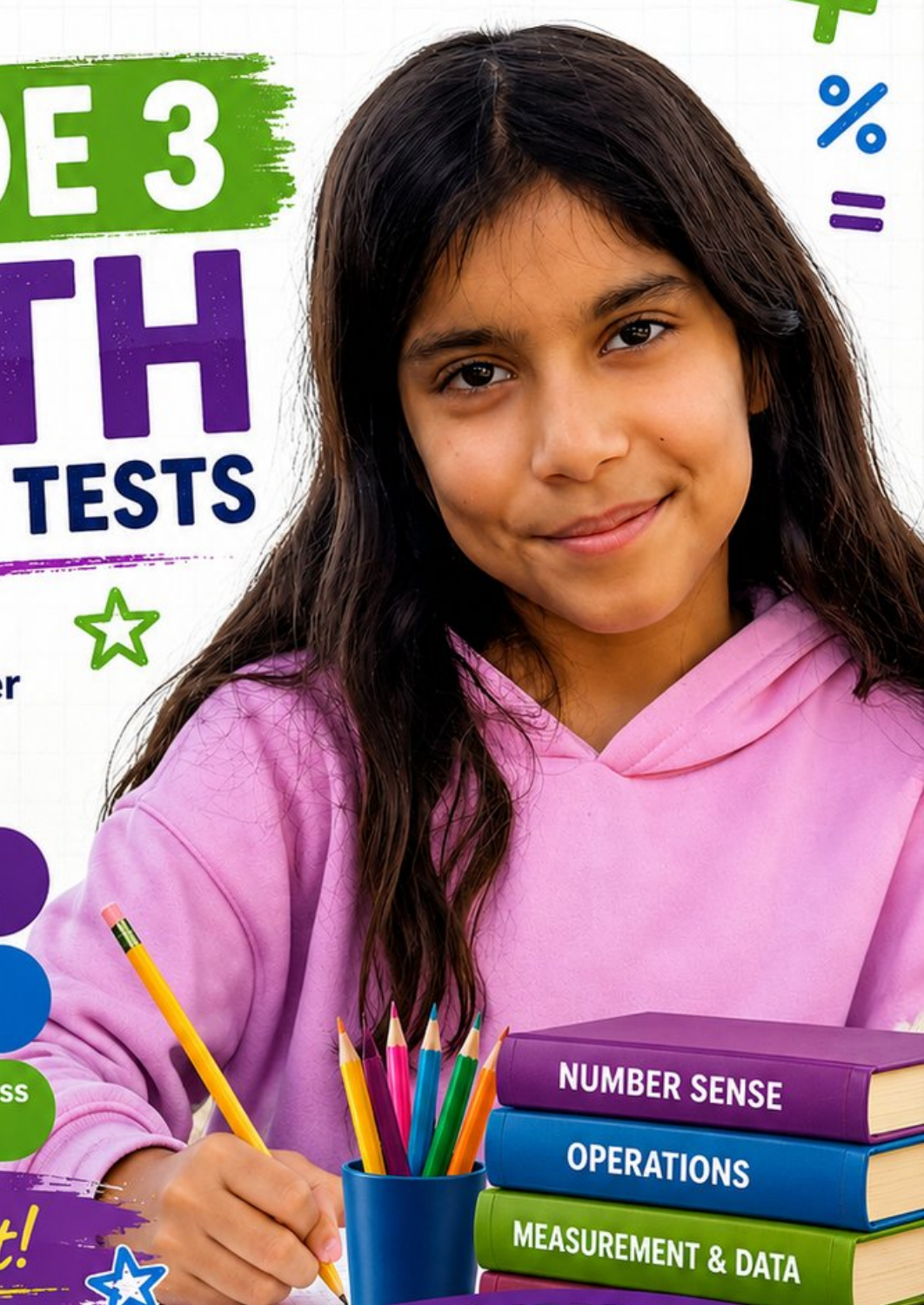
Strengthen Skills  
in Key Math Concepts



Improve Test Readiness  
with Realistic Practice

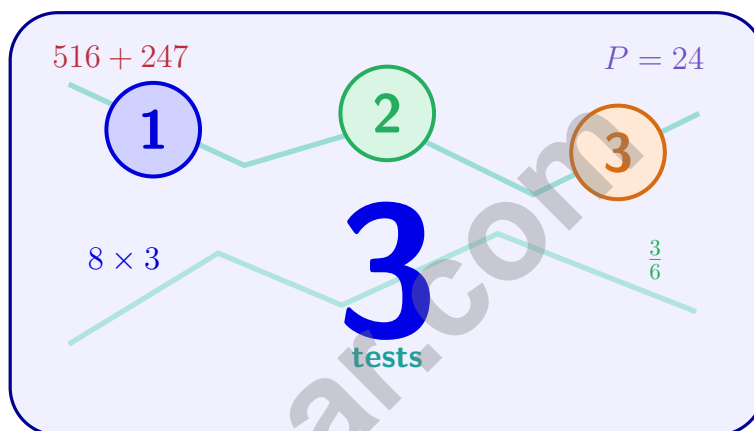


Be Ready.  
Do Your Best!



# 3 North Carolina EOG Grade 3 Math Practice Tests

*Standards-Aligned Practice for Stronger Math Skills and Test Readiness*



Three 30-question trail tests packed with Grade 3 review, North Carolina EOG strategy tips, answer keys, and step-by-step explanations that turn every miss into the next move.

**Jay Daie and Reza Nazari**



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# Welcome to the North Carolina Math Trail

Three tests, one trail, and a stronger Grade 3 thinker at the end



## To the Grade 3 Trail Scout

This book is your practice trail for the North Carolina EOG. You will multiply and divide, read graphs, work with fractions, measure time, find area, and explain your thinking – one trail marker at a time.

Some problems will feel quick, like a clear stretch of wide open trail. Some will ask you to slow down, draw, count, or try again. That slow part is where strong math grows. Every page gives your brain another chance to spot, choose, and build.

### Spot

Read carefully and find what the problem is really asking.

### Sketch

Use numbers, arrays, number lines, or labels to make your thinking visible.

### Signal

Check that your answer makes sense before you wave the next question on.

**Trail promise:** I will read like a tracker, sketch like a planner, and check like a careful scout. I do not have to be perfect to keep moving forward.

# How to Use This Book

A four-step trail plan that turns practice into progress

## Step 1: Pack Your Pack

**Read the Quick Review first.**  
Wake up the Grade 3 ideas you will need before you set foot on the trail.

## Step 2: Hit the Trail

**Take one full test.**  
Thirty questions. Pencil sharp, work shown, calm pace – one marker at a time.

## Step 3: Campfire Check

**Check answers honestly.**  
Circle missed questions. Star any problem that felt confusing – those are tomorrow’s clues.

## Step 4: Track Back

**Fix a few mistakes.**  
Read the explanation, rework the problem, and carry that lesson up the next stretch of trail.

## A Three-Week Trail Plan

<b>Week 1</b>	Hike Test 1. Map what feels strong and what needs a second look.
<b>Week 2</b>	Hike Test 2. Sharpen the habits: read slow, sketch the model, label every number.
<b>Week 3</b>	Hike Test 3. Bring everything – facts, models, checks, and calm focus.

**Best trail habit:** Do not only ask, “What did I score?” Ask, “What did I learn how to do better?”



# Test Overview

## What waits on the trail and what each practice test builds

Each practice test has 30 questions. Together they walk you through the kind of math thinking the North Carolina EOG asks Grade 3 students to use: read carefully, choose a strategy, show work, and check whether an answer makes sense.

### Selected-Response Questions

Pick the best answer from the choices. Strong scouts estimate first, cross out answers that cannot be right, and reread the question before circling.

### Open-Ended Questions

Write the answer and show the thinking. A clear response uses neat numbers, helpful labels, and a short model or explanation.

### Grade 3 Ideas You Will Meet on the Trail

- multiplication, division, arrays, equal groups, and fact fluency
- rounding, adding, subtracting, and multiplying by multiples of 10
- fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shapes
- two-step word problems and explaining a solution path

**What strong EOG work looks like:** the scout reads the whole problem, picks a sensible strategy, writes numbers neatly, labels the answer, and checks that the answer truly fits the question.



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1) Which product is smaller?

A.  $2 \times 80$

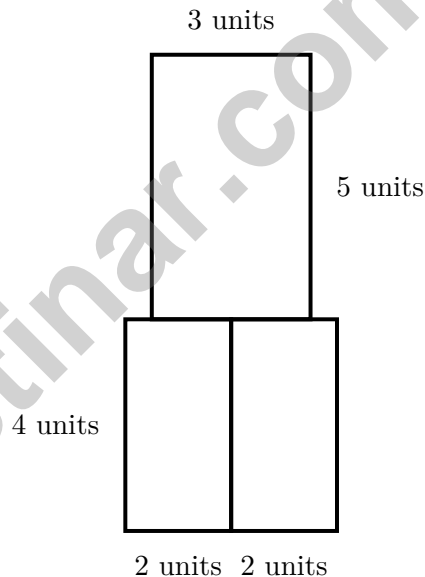
B.  $4 \times 30$

 C. They are equal D. Cannot tell

2) Ben says that a circle divided into 6 equal parts has each part as  $\frac{1}{5}$ . Is this correct?

 A. Yes, because  $6 - 1 = 5$  B. No, each part is  $\frac{1}{6}$  C. Yes, because 5 is a unit fraction D. No, the circle must have 5 parts

3) A T-shaped banner has three parts with lengths and widths: 3 units by 5 units (top), 2 units by 4 units (bottom left), and 2 units by 4 units (bottom right). What is the total area?

 A. 15 sq units B. 24 sq units C. 31 sq units D. 120 sq units

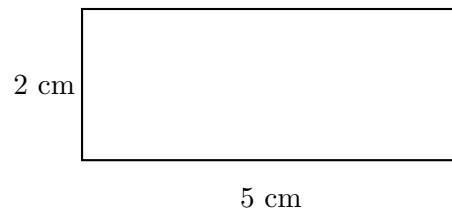
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4)

What is the area of the rectangle shown?

 A. 7 sq cm C. 12 sq cm B. 14 sq cm D. 10 sq cm

5) Noah has 18 crayons and 2 friends. He divides the crayons equally among his friends and himself. How many crayons does each person get?

 A. 9 C. 20 B. 16 D. 6

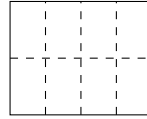
6) A parking lot has 4 sections. Each section has 8 rows. Each row has 3 cars. How many cars can fit in the lot?

 A. 48 C. 72 B. 64 D. 96

7) Write a fraction with numerator 3 that is larger than  $\frac{3}{8}$ .



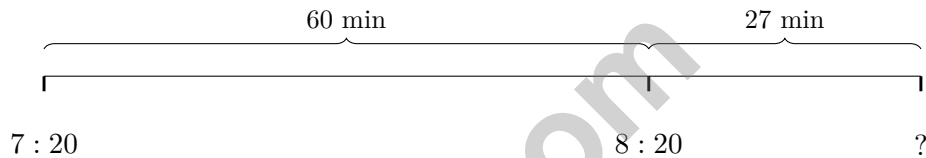
8)



This rectangle is divided into equal parts. What multiplication sentence shows this?

- A.  $2 \times 2 = 4$ 
 C.  $5 \times 2 = 10$   
 B.  $3 \times 2 = 6$ 
 D.  $4 \times 2 = 8$

9) A movie starts at 7 : 20 PM. The actual movie is 87 minutes long. What time does the movie end?



- A. 8 : 37 PM
  C. 8 : 53 PM  
 B. 8 : 47 PM
  D. 9 : 00 PM

10) A rectangle has 5 rows of unit squares and 2 columns of unit squares. What is the area?

- A. 7
  C. 14  
 B. 10
  D. 52

11) Emma measured twig lengths in inches. At the 4 inch mark, there are 5 X's. At the  $4\frac{1}{4}$  inch mark, there are 3 X's. How many more twigs are exactly 4 inches long than  $4\frac{1}{4}$  inches long?

- A. 1
  C. 3  
 B. 2
  D. 8

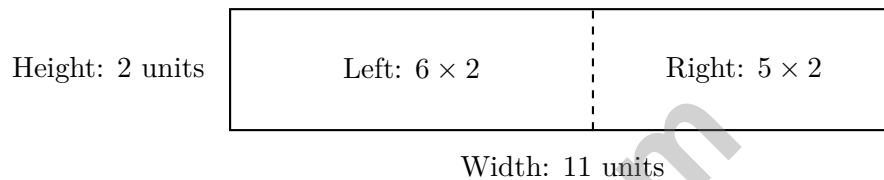


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- 6) A picture graph shows flowers. Red flowers: 6 symbols (scale: 3 each). Yellow flowers: 4 symbols (scale: 3 each). What is the total number of flowers?

- 7) This shows a distributive property example:



What is the equation in distributive form?

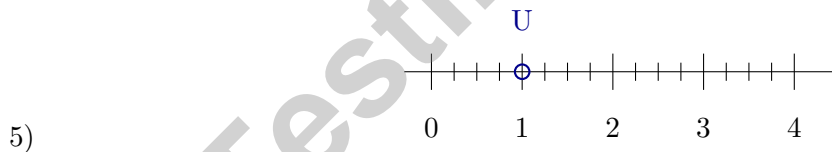
- A.  $2 \times (6 + 5) = 22$ 
 C.  $6 + 5 = 11$   
 B.  $(2 \times 6) + (2 \times 5) = 12 + 10 = 22$ 
 D.  $(6 \times 5) + (2) = 32$
- 8) Look at the rows in a multiplication table:

×	1	2	3	4
3	3	6	9	12
4	4	8	12	16

What increases by 3 in the row for 3?

- A. The multiplier on the top
  C. The column number  
 B. The table title
  D. The product each time

- 1) A bakery puts 20 cupcakes into boxes of 5. How many boxes do they fill?
- A. 3  C. 5  
 B. 100  D. 4
- 2) A composite figure is divided into two parts. Part A is 8 units by 4 units. Part B is 6 units by 2 units. What is the total area?
- A. 44 sq units  C. 32 sq units  
 B. 12 sq units  D. 384 sq units
- 3) A circle is divided into 3 equal slices. One slice is one unit fraction. Which fraction name is correct?
- A.  $\frac{1}{2}$   C.  $\frac{3}{3}$   
 B.  $\frac{1}{3}$   D.  $\frac{2}{3}$
- 4) What is  $635 - 241$ ?
- A. 394  C. 384  
 B. 404  D. 464



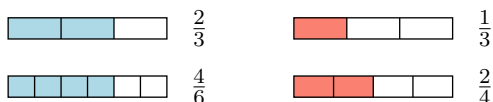
The number line from 0 to 4 is divided into fourths. Point  $U$  is labeled. What fraction does point  $U$  represent?

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



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6) Which two fraction bars show equivalent fractions?

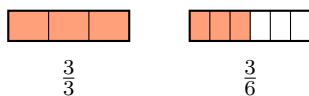


- A.  $\frac{2}{3}$  and  $\frac{4}{6}$
  - B.  $\frac{2}{3}$  and  $\frac{1}{3}$
  - C.  $\frac{1}{3}$  and  $\frac{2}{4}$
  - D.  $\frac{4}{6}$  and  $\frac{2}{4}$
- 7) A rectangle can be divided into equal parts in different ways. Which way shows the rectangle divided into 2 equal parts?



- A. One vertical line through the middle
  - B. Two vertical lines
  - C. Two horizontal lines and two vertical lines
  - D. One diagonal line and one vertical line
- 8) Which fact family shows numbers that belong together?

- A. 5, 8, 40 and  $40 \div 5 = 7$
- B. 4, 6, 24 and  $24 \div 4 = 6$
- C. 6, 7, 42 and  $42 \div 7 = 5$
- D. 3, 9, 27 and  $27 \div 3 = 8$



9) Compare  $\frac{3}{3}$  and  $\frac{3}{6}$ . Which is true?

- A.  $\frac{3}{3} < \frac{3}{6}$
- B.  $\frac{3}{3} > \frac{3}{6}$
- C.  $\frac{3}{3} = \frac{3}{6}$
- D.  $\frac{3}{6} > \frac{3}{3}$

## 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 builds stronger math habits.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice B is correct.** (NC.3.NBT.3)  $2 \times 80 = 160$  and  $4 \times 30 = 120$ . Since  $120 < 160$ , the product  $4 \times 30$  is smaller.
- Choice B is correct.** (NC.3.NF.1) When a circle is divided into 6 equal parts, each part is  $\frac{1}{6}$ , not  $\frac{1}{5}$ . Ben miscounted the total number of parts.
- Choice C is correct.** (NC.3.MD.5) Top:  $3 \times 5 = 15$  sq units. Bottom left:  $2 \times 4 = 8$  sq units. Bottom right:  $2 \times 4 = 8$  sq units. Total:  $15 + 8 + 8 = 31$  sq units.
- Choice D is correct.** (NC.3.MD.5) Area = length  $\times$  width =  $5 \times 2 = 10$  square centimeters.
- Choice D is correct.** (NC.3.OA.8) Noah, his 2 friends = 3 people total. Divide:  $18 \div 3 = 6$  crayons each.
- Choice D is correct.** (NC.3.OA.8) Step 1: Find cars per section:  $8 \times 3 = 24$  cars. Step 2: Find total:  $4 \times 24 = 96$  cars.
- The correct answer is  $\frac{3}{6}$ .** (NC.3.NF.4) With the same numerator, a smaller denominator makes a larger fraction.
- Choice D is correct.** (NC.3.OA.1) The rectangle has 4 columns and 2 rows of equal parts. So  $4 \times 2 = 8$  parts in total.
- Choice B is correct.** (NC.3.MD.1)  $7 : 20 + 87 \text{ min} = 7 : 20 + 60 \text{ min} + 27 \text{ min} = 8 : 20 + 27 \text{ min} = 8 : 47 \text{ PM}$ .
- Choice B is correct.** (NC.3.MD.5) 5 rows  $\times$  2 columns =  $5 \times 2 = 10$  square units. A is sum error.
- Choice B is correct.** (NC.3.MD.5) Subtract:  $5 - 3 = 2$  more twigs are 4 inches long.
- The correct answer is 8.** (NC.3.MD.5) Each unit from 0 to 1 has 4 fourths. From 0 to 2 is 2 units, so  $2 \times 4 = 8$  fourths total.
- Choices A and C are correct.** (NC.3.NF.3)  $\frac{1}{2} = \frac{2}{4}$  (multiply by 2) and  $\frac{1}{2} = \frac{3}{6}$  (multiply by 3). Choice B is wrong because  $\frac{1}{4}$  is one quarter. Choices D and E are not listed as correct.
- Choice A is correct.** (NC.3.NBT.3) Add:  $187 + 246 = 433$ . Ones:  $7 + 6 = 13$  (write 3, carry 1). Tens:  $8 + 4 + 1 = 13$  (write 3, carry 1). Hundreds:  $1 + 2 + 1 = 4$ .
- Choice B is correct.** (NC.3.MD.8) Perimeter =  $2\ell + 2w = 2(8) + 2(5) = 16 + 10 = 26$  cm.
- Choice A is correct.** (NC.3.MD.5)  $3 \times 5 = 15$  unit squares. Option B is 16, C is 14, D is 12.
- Choice C is correct.** (NC.3.NF.1) Two shaded parts out of four equal parts is  $\frac{2}{4}$ , which equals  $\frac{1}{2}$ .
- Choice C is correct.** (NC.3.MD.5) Count the rows: 5 rows. Count across: 6 tiles in each row. Total:  $6 + 6 + 6 + 6 + 6 = 30$  unit square tiles are needed.
- Choice D is correct.** (NC.3.NBT.3)  $56 \div 7 = 8$  because  $8 \times 7 = 56$ . Seven groups of 8 equals 56.
- The correct answer is 35 square units.** (NC.3.NF.4) Multiply length by width:  $7 \times 5 = 35$  square units.
- Choice A is correct.** (NC.3.OA.6)  $7 \times 8 = 56$ , so the missing factor is 7. The related division is  $56 \div 8 = 7$ . Multiplication and division work together.
- Choice A is correct.** (NC.3.NBT.3) The tens digit is 1. Since  $1 < 5$ , round down: 916 rounds to 900.
- Choice D is correct.** (NC.3.OA.6) Multiply:  $9 \times 2 = 18$ . Check:  $18 \div 2 = 9$ .
- Choice A is correct.** (NC.3.NBT.3) One of six equal parts is the unit fraction  $\frac{1}{6}$ .
- Choice D is correct.** (NC.3.MD.3) Pile 1:  $4 \times 3 = 12$ . Pile 2:  $5 \times 3 = 15$ . Total:  $12 + 15 = 27$ .
- Choice B is correct.** (NC.3.MD.7) Area =  $2 \times 5 = 10$  square feet.
- Choice B is correct.** (NC.3.NF.3) 12 sixths divided into groups of 6 sixths (one whole) gives 2 wholes.  $12 \div 6 = 2$ .
- Choice A is correct.** (NC.3.G.1) Not all rectangles have equal sides. Only squares have all 4 sides equal. All rectangles do have 4 sides, 4 right angles, and opposite sides equal.
- Choice A is correct.** (NC.3.MD.5) The distributive property breaks 5 into 2 + 3 and multiplies 7 by each part.
- Choice C is correct.** (NC.3.NBT.3) An array for  $4 \times 3$  has 4 columns and 3 rows. Option C shows the correct array.

### Practice Test 2 Answers and Explanations

- Choice A is correct.** (NC.3.OA.3)  $10 \text{ kg} = 10000 \text{ g}$ , which is more than 3000 g.

Star Player Pep Talk

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## Hi, Star Player!

◇ 3 practice tests. Every one of them was a chance to grow. You took every chance. That's why you're a math star today! ◇

★ **Star players know:** confidence comes from practice. You can't fake it. You build it. You built yours over 3 tests. It's real now! ★

### Star Player Stats

- **Practice:** OFF THE CHARTS!
- **Skills:** BROAD! You can do many problem types.
- **Toughness:** HIGH! You don't quit on hard problems.
- **Game Plan:** READY! You know your strategies.

**Star tip:** on test day, take it one play at a time. One problem. Then the next. You will earn your stars!

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

Testinar.com

# 3 GRADE 3 MATH PRACTICE TESTS

Practice Today. *Succeed* Tomorrow!



Give your child the tools to build strong math skills and test confidence!

This book includes 3 full-length Grade 3 Math practice tests that mirror real test formats and cover all key math standards. With a wide range of question types and real-world problems, students will gain the practice and confidence they need to do their best!

## What's Inside?



### Standards-Aligned Practice

Questions designed to cover essential Grade 3 math standards.



### Variety of Question Types

Multiple-choice, short answer, and more to build well-rounded skills.



### Real-World Applications

Engaging problems that connect math to everyday life.



### Step-by-Step Progress

Track improvement and build confidence with every test.



### Build Skills & Boost Confidence

Strengthen understanding and feel prepared for test day.

## COVERS ALL ESSENTIAL TOPICS

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- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ Graphing & Data Analysis
- ✓ And More!



More Grade 3 Math Resources & Practice Materials

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