

# 3

# Colorado CMAS

## GRADE 3

# MATH PRACTICE TESTS

Standards-Aligned  
Practice for Stronger  
Math Skills and  
Test Readiness



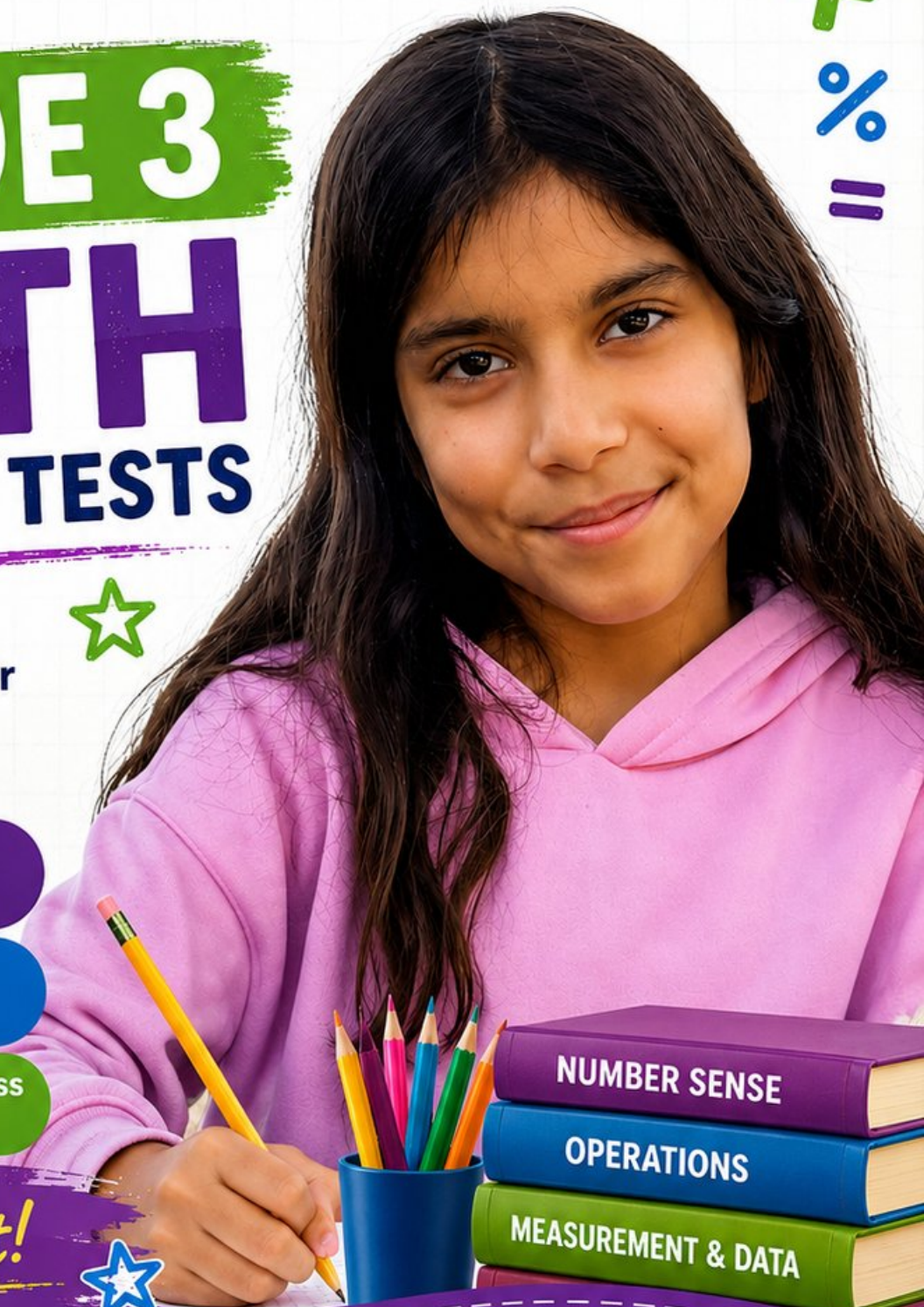
Build Confidence  
with Targeted Practice



Strengthen Skills  
in Key Math Concepts



Improve Test Readiness  
with Realistic Practice



Be Ready.  
Do Your Best!



# 3 Colorado CMAS 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, Colorado CMAS 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 Colorado 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 Colorado CMAS. 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 Colorado CMAS 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 CMAS 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) A rectangle has area  $6 \times (3 + 2)$ . Which calculation uses the distributive property correctly?

A.  $6 \times 5 = 30$

C.  $6 + 3 + 2 = 11$

B.  $(6 \times 3) + (6 \times 2) = 18 + 12 = 30$

D.  $(3 \times 2) + (6) = 12$

2) Which of these has a perimeter of 24 feet?

 A. Square with side 4 ft C. Square with side 5 ft B. Rectangle with length 6 ft and width 3 ft D. Rectangle with length 8 ft and width 4 ft

3) Ava eats lunch at noon. Recess starts 25 minutes after lunch. What time does recess start?

 A. 12 : 25 PM C. 1 : 00 PM B. 12 : 15 PM D. 1 : 25 PM

4) Mia's rectangular bedroom needs new carpet tiles. The room is 10 units by 4 units. How many unit square tiles will cover the entire floor?

 A. 14 tiles C. 40 tiles B. 28 tiles D. 80 tiles

5) 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 C. Two horizontal lines and two vertical lines B. Two vertical lines D. One diagonal line and one vertical line

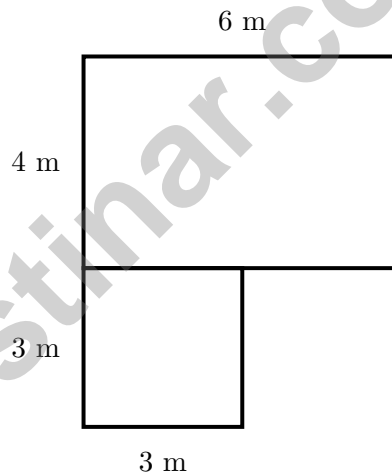
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- 6) A number line from 0 to 1 is divided into 2 equal parts. What fraction is at the first tick?

- 7) A zoo keeper has 36 pounds of food. He divides it equally among 4 animals. How many pounds of food does each animal get?

- A. 9                                       C. 32  
 B. 8                                       D. 40

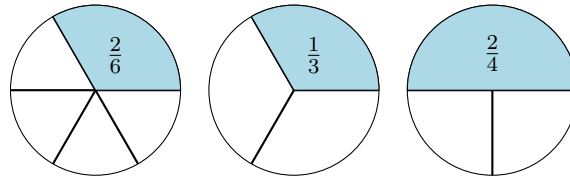
- 8) Mia's bedroom floor is shaped like an L. One part is 6 m by 4 m. The other part is 3 m by 3 m. What is the total area?



- A. 24 sq m                                       C. 33 sq m  
 B. 9 sq m                                       D. 144 sq m



- 9) Look at the pie charts. Select the pair that is equivalent.



- A. First and second                       C. Second and third  
 B. First and third                         D. All three
- 10) Subtract  $604 - 327$  using the standard algorithm.
- 
- 11) In a multiplication table, the diagonal from top-left goes:  $1 \times 1 = 1$ ,  $2 \times 2 = 4$ ,  $3 \times 3 = 9$ ,  $4 \times 4 = 16$ ,  $5 \times 5 = 25$ .  
What pattern do you see?
- A. All numbers are even                       C. All products are even  
 B. Numbers increase by 5                     D. Numbers are perfect squares
- 12) Noah has a square poster with sides of 6 inches. What is the area of the poster?
- A. 12 sq in                                       C. 30 sq in  
 B. 24 sq in                                       D. 36 sq in



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1) A school library has 456 books. The librarian buys 244 more books. How many books are in the library now?

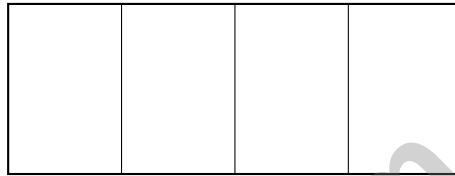
A. 700

C. 690

B. 701

D. 711

2) A rectangle is divided with 3 vertical lines making 4 equal columns. How many parts is the rectangle divided into?



A. 2 parts

C. 3 parts

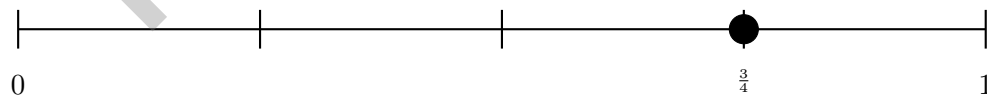
B. 5 parts

D. 4 parts

3) Eli covers a rectangle with unit tiles. It is 9 tiles long and 3 tiles wide. What is the area?



4) On a number line from 0 to 1 divided into 4 equal parts, how many equal parts fit in the distance from 0 to  $\frac{3}{4}$ ?



A. 1 part

C. 3 parts

B. 2 parts

D. 4 parts



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5) A classroom has 3 tables. Each table has 9 chairs. How many chairs are there altogether?

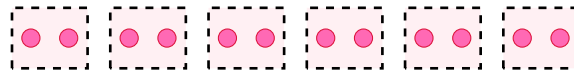
A.  $9 - 3 = 6$

C.  $9 \times 9 = 81$

B.  $3 + 9 = 12$

D.  $3 \times 9 = 27$

6) Which division sentence matches the model?



6 groups of 2

A.  $12 \div 6$

C.  $2 \times 6$

B.  $6 \div 2$

D.  $12 + 6$

7) Look at this part of the  $2 \times 2$  multiplication table:

$\times$	1	2	3
2	2	4	6
4	4	8	12

Which pattern do you see in the row for 2?

A. Goes up by 2 each time

C. Goes up by 3 each time

B. Goes up by 1 each time

D. Goes up by 4 each time

8) A rectangle has a length of 10 inches and a width of 6 inches. How many square inches is this rectangle?

A. 16 square inches

C. 60 square inches

B. 32 square inches

D. 30 square inches

1) Round 158 to the nearest 100.

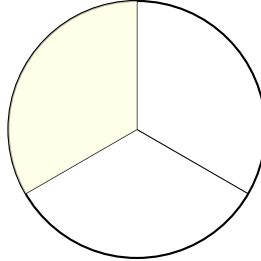
A. 100

C. 158

B. 150

D. 200

2) A circle is divided into equal parts. Lily shades  $\frac{1}{3}$  of the circle. Is Lily's shading correct?



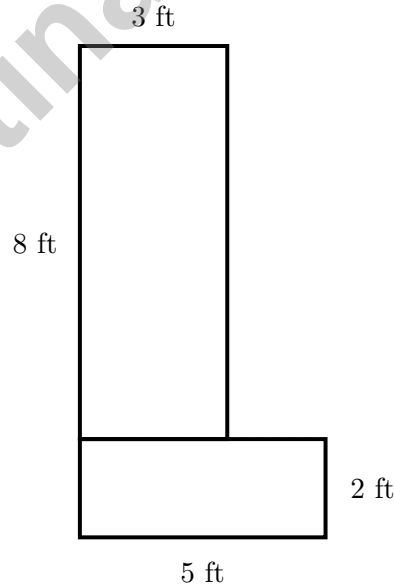
A. Yes, one part out of three parts is  $\frac{1}{3}$

C. No, the parts are not equal

B. No, she shaded  $\frac{2}{3}$  instead

D. Yes, that is correct

3) An L-shaped garden is divided into two rectangles by a dashed line. The vertical part is 3 ft by 8 ft. The horizontal part is 5 ft by 2 ft. What is the total area?



A. 10 sq ft

C. 34 sq ft

B. 24 sq ft

D. 240 sq ft



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4) A garden is arranged in an array with 7 rows and 3 plants in each row. How many plants are in the garden?

A. 21

C. 10

B. 19

D. 24

5) A garden is 7 feet long and 5 feet wide. What is its area?

A. 12 sq ft

C. 24 sq ft

B. 35 sq ft

D. 70 sq ft

6) Noah lists products of 3: 3, 6, 9, 12, 15, 18, 21, 24.

Which property explains why each product increases by 3?

A. Because 3 is odd

D. Because we multiply 3 by 1, then 2, then 3, then 4, etc.

B. Because 3 is in the ones place

C. Because these numbers are less than 30

7) Eli found that  $6 \times 7 = 42$ . Now he needs to find  $7 \times 6$ . What does he know?

A.  $7 \times 6 = 41$

C.  $7 \times 6 = 43$

B.  $7 \times 6 = 49$

D.  $7 \times 6 = 42$

8) Which number sentence is correct?

A.  $6 \times 7 = 35$

C.  $9 \times 5 = 44$

B.  $7 \times 6 = 48$

D.  $5 \times 8 = 40$



## 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.** **(3.MD.C.7)** Use the distributive property: multiply 6 by each part, then add.
- Choice D is correct.** **(3.MD.D.8)** Option D is correct:  $2(8) + 2(4) = 24$  ft. Option A is 16 ft, option B is 18 ft, and option C is 20 ft.
- Choice A is correct.** **(3.MD.A.1)** Noon is 12 : 00 PM.  $12 : 00 + 25 \text{ min} = 12 : 25$  PM. Distractor B (off-by-10), C (full hour), D (adds extra hour).
- Choice C is correct.** **(3.MD.C.5)**  $10 \times 4 = 40$  unit square tiles are needed.
- Choice A is correct.** **(3.G.A.2)** A single vertical line through the middle divides this rectangle into 2 equal parts.
- The correct answer is  $\frac{1}{2}$ .** **(3.NF.A.1)** The first tick is halfway, or  $\frac{1}{2}$ .
- Choice A is correct.** **(3.OA.A.3)** Divide:  $36 \div 4 = 9$  pounds per animal.
- Choice C is correct.** **(3.MD.C.5)** Part 1:  $6 \times 4 = 24$  sq m. Part 2:  $3 \times 3 = 9$  sq m. Total:  $24 + 9 = 33$  sq m.
- Choice A is correct.** **(3.NF.A.3)**  $\frac{2}{6}$  and  $\frac{1}{3}$  show the same shaded amount. They are equivalent.
- The correct answer is 277.** **(3.NBT.A.2)** Regroup 604 as 5 hundreds, 9 tens, and 14 ones. Ones:  $14 - 7 = 7$ . Tens:  $9 - 2 = 7$ . Hundreds:  $5 - 3 = 2$ . Correct: 277.
- Choice D is correct.** **(3.OA.D.9)** Each product is made by multiplying a number by itself:  $1 \times 1$ ,  $2 \times 2$ ,  $3 \times 3$ , and so on. That is the pattern on this diagonal.
- Choice D is correct.** **(3.MD.C.6)** Area of a square =  $6 \times 6 = 36$  square inches.
- Choice C is correct.** **(3.MD.D.8)** Tall rectangle:  $3 \times 8 = 24$  square units. D is concatenation error.
- Choice C is correct.** **(3.MD.B.4)** Range = max - min =  $13 - 12 = 1$  cm.
- Choice A is correct.** **(3.OA.B.5)** The distributive property breaks apart the sum and multiplies each addend by 4:  $(2 + 3) \times 4 = 2 \times 4 + 3 \times 4$ .
- Choices A and C are correct.** **(3.NBT.A.3)**  $6 \times 40 = 240$  and  $4 \times 60 = 240$ . Choice B is  $8 \times 20 = 160$ , choice D is  $3 \times 70 = 210$ , and choice E is  $6 \times 30 = 180$ .
- Choice C is correct.** **(3.NF.A.2)** Counting ticks from 0, the dot is at the 4th mark out of 6 equal parts, so it is  $\frac{4}{6}$ .
- Choice A is correct.** **(3.OA.B.6)** In a fact family, if  $5 \times 7 = 35$ , then  $35 \div 5 = 7$  (because  $7 \times 5 = 35$ ) and  $35 \div 7 = 5$  (because  $5 \times 7 = 35$ ). In division, we find the missing factor from the multiplication fact. Options C and D incorrectly repeat the same number.
- Choice D is correct.** **(3.OA.A.1)** The array shows 3 columns and 4 rows, so  $3 \times 4 = 12$  or  $4 \times 3 = 12$ .
- Choice A is correct.** **(3.MD.C.7)** Area =  $7 \times 6 = 42$  square feet.
- Choice B is correct.** **(3.NF.A.3)** Three thirds equals one whole. One half is less than one whole. So  $\frac{3}{3} > \frac{1}{2}$ .
- Choice C is correct.** **(3.G.A.2)** 5 wholes =  $\frac{5}{1}$ . Any whole number with denominator 1 equals that number. (A) equals 1, (B) is a unit fraction, (D) is more than 2 but not 5 wholes.
- Choice C is correct.** **(3.NF.A.2)**  $\frac{6}{6}$  means six sixths, which make one whole. The point is at 1.
- The correct answer is 700.** **(3.NBT.A.1)** The tens digit is 2. Since  $2 < 5$ , round down: 728 rounds to 700.
- Choice B is correct.** **(3.MD.B.3)** Multiply the height by the scale:  $3 \times 5 = 15$  goldfish.
- Choice B is correct.** **(3.NF.A.1)** The denominator tells how many equal parts the whole is divided into. One-third ( $\frac{1}{3}$ ) means 3 equal parts.
- Choice A is correct.** **(3.MD.A.2)** 200 g is the largest mass.
- Choice D is correct.** **(3.OA.C.7)** 6 boxes with 9 cars each:  $6 \times 9 = 54$ .
- Choice D is correct.** **(3.OA.A.4)** The total number of stickers is unknown. Since the stickers are shared equally among 3 friends and each friend gets 6, the equation is  $\square \div 3 = 6$ .
- Choice D is correct.** **(3.OA.A.2)**  $24 \div 6 = 4$ . Divide the total pages by the number of days.

### Practice Test 2 Answers and Explanations

Notes From the Math Gardener

## Hi, Math Gardener!

◇ Look at how much you grew! 3 tests is like 3 weeks of taking care of your math garden. Every problem was a seed. Every try was water. ◇

★ **Gardeners say:** growth takes time. You can't see roots, but they are there. You can't always feel smarter, but you are. Your math garden is full! ★

### Garden Check-Up

- **Roots:** STRONG! Your basic math is solid.
- **Stems:** STURDY! You can do step-by-step problems.
- **Leaves:** GREEN! You have lots of math tools.
- **Flowers:** BRIGHT! You feel proud of your work.

**Gardener tip:** keep watering your math garden long after the test. Every habit you built will grow with you for years!

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 Gardener

# 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.



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## COVERS ALL ESSENTIAL TOPICS

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



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**PRACTICE. PREPARE. SUCCEED.**