

7

Colorado

CMAS

Grade 3 MATH

PRACTICE TESTS

Standards-Aligned Practice with
Review, Answer Keys, and Explanations



7 Full-Length
Practice Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.

PREPARE
PRACTICE
SUCCEED



$4 \times 6 = 24$



7 Colorado CMAS Grade 3 Math Practice Tests

Standards-Aligned Practice with Review, Answer Keys, and Explanations



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

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Welcome to the Seven Math Trails

Seven full tests, seven fresh chances, and one braver Grade 3 thinker



Read the trail. Mark the clues. Solve with care.

To the Grade 3 Math Trail Leader

This book gives you seven complete practice trails for the Colorado CMAS. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

Colorado has mountain passes, snowy peaks, prairie towns, fast rivers, and high-sky views, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and check direction and reasonableness as you work.

Scout

Find what the problem is asking before you calculate.

Solve

Pick an equation, model, array, graph, or number line.

Prove

Check the answer and explain the thinking clearly.

Seven-trail promise: I will work with patience, use my scratch space wisely, and let every correction make my next test stronger.

How to Use This Book

A seven-trail routine for steady Grade 3 growth

Use one practice trail at a time. The goal is not to rush through more pages. The goal is to finish, check, repair, and bring a stronger habit to the next test. For Colorado students, each trail moves through mountain passes, snowy peaks, prairie towns, fast rivers, and high-sky views: steady, alert, and ready for the next clue.

1. **Preview the tools.** Skim the reference page before each test.
2. **Take one test.** Work steadily and mark problems that need another look.
3. **Check the key.** Use the compact answer boxes first.
4. **Study explanations.** Read missed items and lucky guesses.
5. **Redo three problems.** Rewrite the work cleanly without copying.
6. **Name one habit.** Choose a focus such as labels, facts, fractions, or checking.
7. **Start the next trail.** Bring that habit into the next full test.

Best review habit: A missed problem is a trail marker. It shows where to slow down, look again, and choose a better step.



What Is Inside?

Seven complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–7	Solve seven different 30-question tests.	Build stamina and see Grade 3 skills mixed together.
Reference Materials	Review measurement and time facts before each test.	Keep common tools close without turning pages backward.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read why each answer works.	Turn missed items into a clear next step.
Standards Reference	See how Colorado Grade 3 standards connect to practice.	Understand the skills behind the questions.

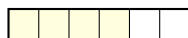
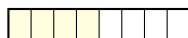
Each test has 26 multiple-choice questions, 1 select-all question, and 3 open-ended questions. This gives students practice with quick decisions, careful reading, and short written math answers for the Colorado CMAS path.



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& answers

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 $\frac{4}{6}$  $\frac{4}{8}$

1)

Compare $\frac{4}{6}$ and $\frac{4}{8}$. Which is true?

A. $\frac{4}{6} > \frac{4}{8}$ (same numerator, $6 > 8$)

D. $\frac{4}{8} > \frac{4}{6}$ (more pieces means more amount)

B. $\frac{4}{6} < \frac{4}{8}$ ($8 > 6$)

C. $\frac{4}{6} = \frac{4}{8}$

2) Mia divides 1 cookie equally among 3 friends. What fraction does each friend get? Which fraction is equivalent?

A. $\frac{1}{3}$ and $\frac{2}{6}$

C. $\frac{1}{2}$ and $\frac{2}{4}$

B. $\frac{1}{4}$ and $\frac{2}{8}$

D. $\frac{3}{6}$ and $\frac{1}{2}$

3) A line plot displays pencil masses in grams: 7, $7\frac{1}{2}$, 8, $8\frac{1}{2}$. The X counts are: 2 at 7 grams, 3 at $7\frac{1}{2}$ grams, 2 at 8 grams, and 1 at $8\frac{1}{2}$ grams. How many pencils are there altogether?

A. 6

C. 8

B. 7

D. 9

4) What is 389 rounded to the nearest 10?



5) Which picture shows 10 items divided equally into 5 groups?

- A. Two groups of five



- B. One group of ten



- C. Ten groups of one



- D. Five groups of two



6) Which picture shows 3 groups of 4?

- A. ★★ ★★ ★★ ★★ ★★

- C. ★★ ★★ ★★ ★★

- B. ★★ ★★ ★★ ★★

- D. ★★ ★★ ★★ ★★ ★★

7) Complete: $\square \times 7 = 63$

- A. 7

- C. 10

- B. 8

- D. 9

8) Two rectangles have the same area of 24 square units. Rectangle A is 6 units by 4 units. Which dimensions could Rectangle B have?

- A. 8 units by 3 units

- C. 6 units by 5 units

- B. 5 units by 5 units

- D. 7 units by 3 units

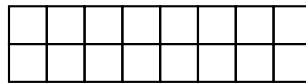


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- 9) An L-shaped patio is divided by dashed lines. The upper part is 5 m by 4 m. The lower left part is 3 m by 2 m. Find the total area of the patio.



- 10) Mia covers a 2 by 8 rectangle with unit square tiles. Here is the grid:



Count the unit squares. How many are there?

- A. 10 unit squares (the perimeter) C. 8 unit squares
 B. 16 unit squares D. 20 unit squares
- 11) A bar graph shows students at events. Event A has 2 units, Event B has 5 units. Scale is 10 students per unit. How many students attended both events combined?
- A. 50 students C. 70 students
 B. 60 students D. 100 students
- 12) Look at this problem. Which property of multiplication lets you group the factors differently?
- $$(2 \times 3) \times 4 = 2 \times (3 \times 4)$$
- A. Distributive property C. Identity property
 B. Commutative property D. Associative property



1) Eli paints a rectangular wall. The wall is 8 feet wide and 3 feet tall. How many square feet does Eli paint?

A. 24 sq ft

C. 11 sq ft

B. 16 sq ft

D. 32 sq ft

2) A game starts at 10 : 45 and lasts 1 hour 15 minutes. What time does it end?

3) Which fraction equals 1 whole?

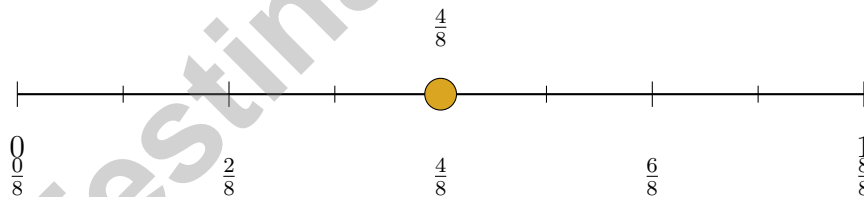
A. $\frac{2}{4}$

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

B. $\frac{3}{3}$

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

4) Which of the following is equivalent to $\frac{2}{4}$?



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

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

B. $\frac{4}{8}$

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



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5) What number makes the equation true?

$$36 \div \square = 9$$

A. 4

C. 6

B. 5

D. 3

6) Two identical rectangles. Rectangle M has 3 parts out of 4 shaded. Rectangle N has 6 parts out of 8 shaded. Do they have the same shaded amount?

Rectangle M: $\frac{3}{4}$ 

Rectangle N: $\frac{6}{8}$ 

A. No, M is larger.

C. Yes, same amount.

B. No, N is larger.

D. Rectangles are different sizes.

7) This rectangle is divided into unit squares on a grid.



What is the area?

A. 8 sq units

C. 20 sq units

B. 15 sq units

D. 25 sq units



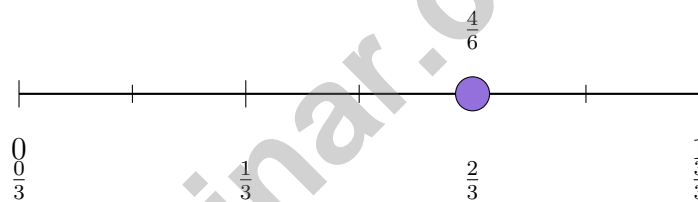
1) Noah has a rectangular piece of paper. It is 9 inches long and 2 inches wide. If he covers it with 1-inch by 1-inch unit squares, how many will he need?

- A. 11 unit squares
- B. 14 unit squares
- C. 18 unit squares
- D. 20 unit squares

2) Which tiling shows $4 \times (7 + 5) = (4 \times 7) + (4 \times 5)$?

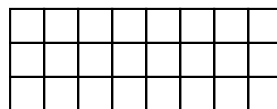
- A. A tall rectangle with width 4 split into two parts: top part is 4×7 , bottom is 4×5
- B. A tall rectangle with width 7 split into two parts
- C. A wide rectangle with height 5 split into parts
- D. One 4×12 rectangle

3) Look at the number line. What fraction equals $\frac{4}{6}$?



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

4) A teacher covers a classroom floor with square tiles. The floor is a rectangle that is 8 tiles long and 3 tiles wide. Here is a diagram:



Count the square tiles. How many tiles are needed to cover the entire floor?

- A. 11 tiles (only the edge)
- B. 22 tiles (counted twice)
- C. 24 tiles
- D. 40 tiles

5)

2

4

6

8

10

 ?

Which number comes next?

A. 11

C. 14

B. 16

D. 12

6) You need to multiply 4×70 . Which shows a strategy you could use?

A. $4 + 7 + 10 = 21$

C. $4 + 70 = 74$

B. $(4 \times 7) \times 10 = 28 \times 10 = 280$

D. $(4 + 7) \times 10 = 110$

7) Ben has a chocolate bar. He divides it into 3 equal pieces. What fraction is each piece?

A. $\frac{2}{3}$

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

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

D. $\frac{1}{2}$

8) What number makes the equation true?

$$8 \times \square = 32$$

A. 4

C. 6

B. 5

D. 3

9) What is 9×8 ?

A. 63

C. 72

B. 70

D. 80



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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

- 1) **Choice A is correct.** **(3.NF.A.3)** Same numerator (4): sixths are bigger pieces than eighths. Comparing the shaded areas: 4 sixths covers more than 4 eighths. The fewer pieces the denominator divides into, the bigger each piece.
- 2) **Choice A is correct.** **(3.NF.A.3)** Each friend gets $\frac{1}{3}$, which is equivalent to $\frac{2}{6}$.
- 3) **Choice C is correct.** **(3.MD.B.4)** Add all X's: $2 + 3 + 2 + 1 = 8$ pencils total.
- 4) **The correct answer is 390.** **(3.NBT.A.1)** The ones digit is 9. Since $9 \geq 5$, round up: 389 rounds to 390.
- 5) **Choice D is correct.** **(3.OA.A.2)** $10 \div 5 = 2$. The picture shows 5 equal groups, each with 2 items.
- 6) **Choice A is correct.** **(3.OA.A.1)** 3 groups of 4 means three separate groups, each with 4 objects. Choice A shows three groups with 4 stars in each.
- 7) **Choice D is correct.** **(3.OA.B.6)** The missing factor is 9 because $9 \times 7 = 63$. This is the same as saying $63 \div 7 = 9$.
- 8) **Choice A is correct.** **(3.MD.C.5)** $8 \times 3 = 24$ square units, same as Rectangle A.
- 9) **The correct answer is 26 square meters.** **(3.MD.C.5)** Upper part: $5 \times 4 = 20$ sq m. Lower part: $3 \times 2 = 6$ sq m. Total: $20 + 6 = 26$ sq m.
- 10) **Choice B is correct.** **(3.MD.C.5)** Count the rows: 2 rows. Count across: 8 unit squares per row. Total: $8 + 8 = 16$ unit squares cover the rectangle.
- 11) **Choice C is correct.** **(3.MD.B.3)** Event A: $2 \times 10 = 20$. Event B: $5 \times 10 = 50$. Total: $20 + 50 = 70$.
- 12) **Choice D is correct.** **(3.OA.B.5)** The associative property says we can group factors in different ways and still get the same product. The groups change, like $(2 \times 3) \times 4 = 6 \times 4 = 24$ or $2 \times (3 \times 4) = 2 \times 12 = 24$, but the product stays the same.
- 13) **Choice C is correct.** **(3.NF.A.3)** Multiply numerator and denominator by 2: $\frac{2 \times 2}{2 \times 2} = \frac{4}{4}$.
- 14) **Choice B is correct.** **(3.OA.D.8)** Step 1: Add: $30 + 10 = 40$ cars. Step 2: Subtract: $40 - 15 = 25$ cars. (Choice D is step 1 only.)
- 15) **Choice C is correct.** **(3.MD.C.6)** The grid is $3 \times 4 = 12$ unit squares.
- 16) **Choices A and C are correct.** **(3.MD.C.7)** A is correct (core formula: length \times width = area). C is correct (counting unit squares shows area). B is perimeter-like, not area. D is false: $5 \times 5 = 25$, not 10. E is false (this is neither area nor perimeter).
- 17) **Choice D is correct.** **(3.OA.A.3)** Multiply: 7 groups \times 6 students per group = 42 students.
- 18) **Choice A is correct.** **(3.MD.C.7)** Both rectangles have width 3. Total length is $10 + 6 = 16$. Combined area is $(3 \times 10) + (3 \times 6) = 30 + 18 = 48$.
- 19) **Choice C is correct.** **(3.NBT.A.3)** The area model shows 4 groups of (6×10) . Adding: $60 + 60 + 60 + 60 = 240$. Or: $(4 \times 6) \times 10 = 24 \times 10 = 240$.
- 20) **Choice A is correct.** **(3.NF.A.1)** One of eight equal sections is $\frac{1}{8}$.
- 21) **Choice B is correct.** **(3.MD.D.8)** Area = length \times width = $9 \times 4 = 36$ square meters.
- 22) **Choice A is correct.** **(3.MD.A.2)** 800 g is more than 500 g, so the left side is heavier.
- 23) **The correct answer is 623.** **(3.NBT.A.2)** Ones: $5 + 8 = 13$ (write 3, carry 1). Tens: $7 + 4 + 1 = 12$ (write 2, carry 1). Hundreds: $3 + 2 + 1 = 6$. Final answer: 623.
- 24) **Choice D is correct.** **(3.G.A.2)** 8 fourths = $8 \div 4 = 2$ wholes. Each pitcher is 4 fourths.
- 25) **Choice D is correct.** **(3.NF.A.2)** Point D is at 2.5. Count from 0: the 10th fourth-mark is at $\frac{10}{4} = 2\frac{2}{4} = 2\frac{1}{2}$.
- 26) **Choice C is correct.** **(3.G.A.1)** By definition, a parallelogram has two pairs of opposite sides that are parallel. Not all parallelograms have right angles or equal sides.
- 27) **Choice D is correct.** **(3.OA.A.4)** Think: $5 \times 4 = 20$, so $20 \div 4 = 5$.
- 28) **Choice A is correct.** **(3.OA.D.9)** 1, 3, and 5 are odd numbers (shown in blue). 2 and 4 are even (shown in red).
- 29) **Choice C is correct.** **(3.MD.A.1)** From 3 : 14 to 3 : 56: $56 - 14 = 42$ minutes.
- 30) **Choice C is correct.** **(3.NF.A.2)** The dot is at 1 tick out of 2 equal parts, so the fraction is $\frac{1}{2}$.



Ahoy, Math Sailor!

◇ You sailed through 7 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 7 practice tests. You will reach safe harbor!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Captain

PRACTICE TODAY. MASTER TOMORROW.

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

- ✓ 7 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success
- ✓ Review, answer keys, and explanations



EACH PRACTICE TEST INCLUDES:



Standards-
Aligned
Questions



Variety of
Question
Types



Real-World
Math
Applications



Step-by-Step
Progress
Tracking



Build Skills
and Boost
Confidence

COVERS ALL ESSENTIAL TOPICS

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- ✓ Fractions & Decimals
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