

8

Colorado CMAS

8
PRINTED
TESTS

+

2
ONLINE
TESTS

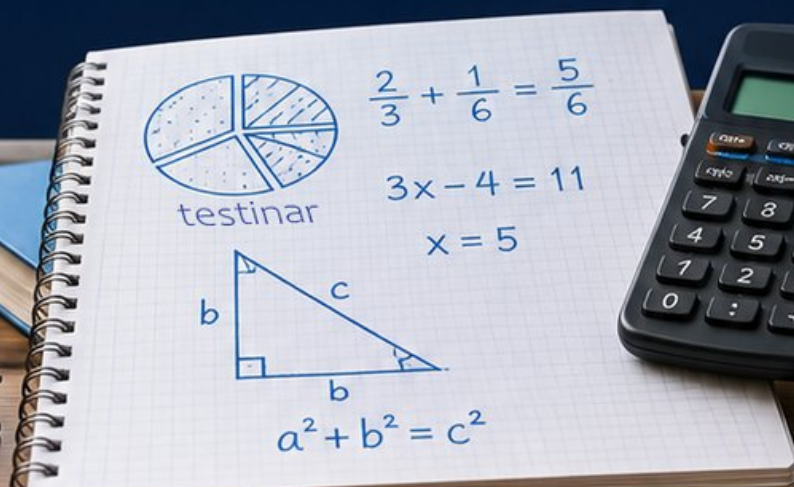
GRADE 6

MATH

PRACTICE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 Colorado CMAS Grade 6 Math Practice Tests

Standards-Aligned Mountain-Ready Math Thinking for Colorado Measures of Academic Success



Eight complete 40-question Grade 6 practice rounds for CMAS, built for mountain-ready math thinking with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Colorado Math Explorer!

Eight focused rounds using mountain-ready math thinking

This book gives you eight full Grade 6 practice tests for CMAS. Each round uses ridge lines, trail signs, and high-country persistence as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Colorado Practice Promise

Climb one step at a time: identify the skill, write the setup, and check the final result.

Read

Plan

Check

How to Use This Book

A eight-session routine for mountain-ready math thinking

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Mark confidence.** Put a small star beside problems where your plan felt strong.
3. **Work in order.** Take one 40-question test at a time in a quiet place.
4. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.
5. **Correct actively.** Retry missed items before reading the full explanation.

Colorado review rhythm: Use each round like a trail segment: finish it, study the hard turns, then climb again.



What Is Inside?

Eight CMAS tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–8	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Mountain-ready math thinking means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

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1) A composite figure consists of a triangle and a trapezoid (or identify triangular components). If only the triangle portion has base 10 meters and height 5 meters, what is the area of just the triangle?

A. 15 m^2

C. 50 m^2

B. 25 m^2

D. 75 m^2

2) A length of rope is $\frac{7}{8}$ meter long. How many pieces of $\frac{1}{16}$ meter can be cut from the rope?

3) The distance d traveled by a jogger in t minutes is shown in the table.

Time (min)	5	10	15	20
Distance (mi)	0.5	1	1.5	2

What is the jogger's speed in miles per minute?

A. 0.05 miles per minute

C. 0.2 miles per minute

B. 0.5 miles per minute

D. 0.1 miles per minute

4) Solve for x : $\frac{x}{4} = 8$.



9) Write an expression for “the product of 6 and the difference of h and 2”.

A. $6h - 2$

C. $(6 - h) \cdot 2$

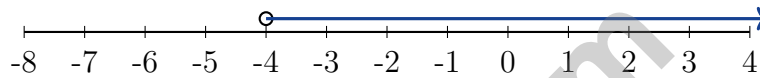
B. $6 - h - 2$

D. $6(h - 2)$

10) Which phrase is closest in meaning to $m < 9$?

 A. m is at most 9 C. m is greater than 9 B. m is no less than 9 D. m is less than 9

11) Which number line represents the inequality $x > -4$?

 A. Closed circle at -4 , arrow right C. Open circle at -4 , arrow left B. Closed circle at -4 , arrow left D. Open circle at -4 , arrow right

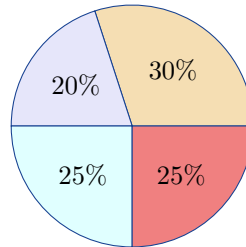
1) Which equation is equivalent to $x - 9 = 5$?

A. $x = 5 - 9$

C. $x = 9 + 5$

B. $x = 9 - 5$

D. $x = 5 + 9$



2)

What is the central angle for the 20% section in this circle graph?

A. 54°

C. 72°

B. 90°

D. 108°

3) A double-bar graph compares the number of books read by boys and girls over 3 months. In January, boys read 24 books and girls read 18. In February, boys read 30 and girls read 28. In March, boys read 26 and girls read 32.

In which month did girls read more books than boys?

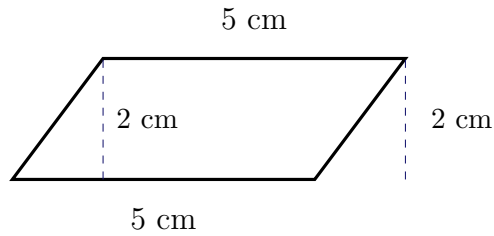
A. January

C. February

B. None

D. March

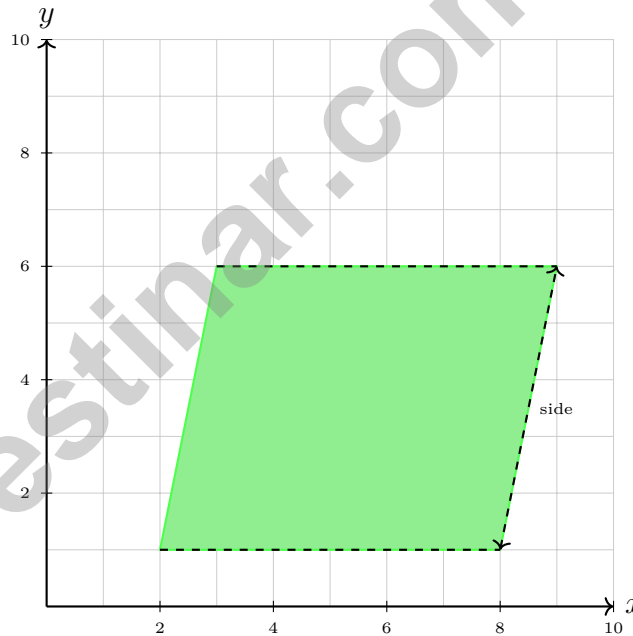




4)

The trapezoid has both bases labeled as 5 cm and a height of 2 cm. What is the area?

- A. 5 cm^2
- C. 12 cm^2
- B. 20 cm^2
- D. 10 cm^2



5)

A parallelogram has vertices at $(2, 1)$, $(8, 1)$, $(9, 6)$, and $(3, 6)$. The base is 6 units and the height is 5 units. What is its area?

- A. 30 square units
- C. 40 square units
- B. 35 square units
- D. 42 square units

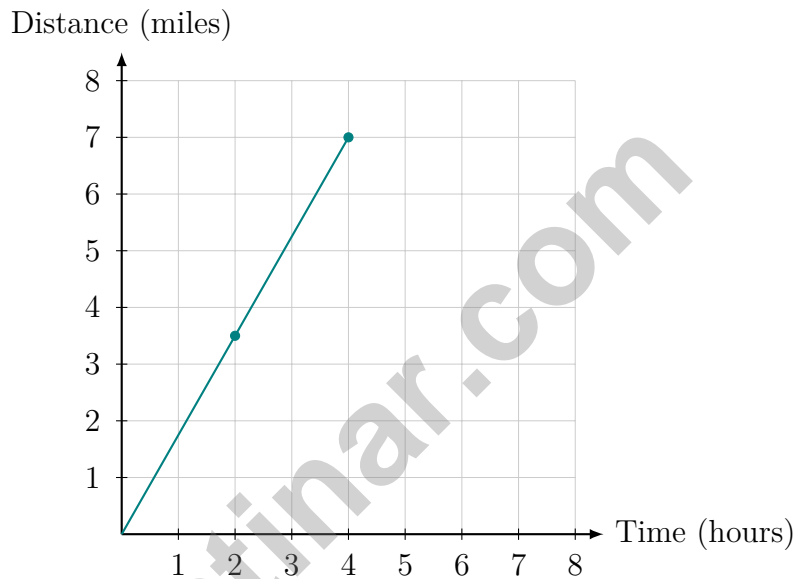


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1) Find the GCF of 38 and 57 using prime factorization.

- A. 1 C. 38
 B. 57 D. 19

2) The graph below represents the distance a train travels over time.



What is the train's speed?

- A. 1.5 miles per hour C. 2 miles per hour
 B. 3.5 miles per hour D. 1.75 miles per hour
- 3) A garden bed is shaped like a trapezoid with parallel sides of 8 ft and 12 ft and a height of 6 ft. How many square feet is the garden bed?
- A. 60 ft² C. 26 ft²
 B. 48 ft² D. 120 ft²



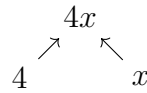
4) On a map, the grocery store is at $(1, 2)$ and the bank is at $(7, 2)$. The distance on the map is 6 units. If each unit is 100 meters, what is the real-world distance?

A. 500 m

C. 700 m

B. 600 m

D. 800 m



5)

Product

This expression tree represents which phrase?

A. The sum of 4 and x

C. The quotient of 4 and x

B. The product of 4 and x

D. 4 divided by x

6) A garden plot is $2\frac{1}{2}$ acres. If you divide it into sections of $\frac{5}{8}$ acre each, how many sections do you have?

7) A parking meter requires at least \$0.50 but less than \$2.00 to stay valid. Which inequality represents the amount m needed?

A. $m \geq 0.50$ and $m < 2.00$

C. $m \leq 0.50$ and $m \geq 2.00$

B. $m > 0.50$ and $m \leq 2.00$

D. $m < 0.50$ and $m > 2.00$



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Colorado CMAS Practice Test Answer Keys

How to use this Colorado CMAS answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to mountain-ready math thinking
3. rework the problem before reading the full explanation, using this reminder:
Climb one step at a time: identify the skill, write the setup, and check the final result.

A calm Colorado correction routine turns every missed item into useful practice. Use each round like a trail segment: finish it, study the hard turns, then climb again.



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Colorado Practice Test Answers and Explanations

Review the eight printed CMAS tests with organized, persistent, and ready for higher ground habits.

Practice Test 1 Answers and Explanations

- Choice B is correct. **(6.G.A.1)** $A = \frac{1}{2} \times 10 \times 5 = 25 \text{ m}^2$.
- The correct answer is 14 pieces. **(6.NS.A.1)** You're counting tiny $\frac{1}{16}$ -meter pieces inside $\frac{7}{8}$ meter: $\frac{7}{8} \div \frac{1}{16} = \frac{7}{8} \times 16 = \frac{112}{8} = 14$ pieces.
- Choice D is correct. **(6.EE.C.9)** Speed = $\frac{\text{distance}}{\text{time}} = \frac{1 \text{ mi}}{10 \text{ min}} = 0.1$ miles per minute.
- The correct answer is 32. **(6.EE.B.5)** Multiply both sides by 4: $x = 8 \times 4 = 32$. The inverse of dividing by 4 is multiplying by 4.
- Choice C is correct. **(6.SP.B.4)** Stem 12 (representing 12.1 to 12.9) has 5 leaves: 1, 3, 5, 7, 9, giving 5 runners.
- Choice A is correct. **(6.SP.B.4)** On the number line, $-\frac{1}{2}$ is to the right of -1 , so it is greater. Check: $-0.5 > -1$ is true.
- Choice B is correct. **(6.NS.C.8)** The origin is the intersection of the x -axis and y -axis, located at the coordinates $(0, 0)$.
- Choice B is correct. **(6.NS.C.8)** Since $|5 - y| = 7$, then $y = 5 - 7 = -2$ or $y = 5 + 7 = 12$.
- Choice D is correct. **(6.EE.A.3)** "The difference of h and 2" is $(h - 2)$. "The product of 6 and" that difference is $6(h - 2)$.
- Choice D is correct. **(6.EE.B.8)** The symbol $<$ directly translates to "less than," so $m < 9$ means " m is less than 9."
- Choice D is correct. **(6.EE.B.8)** $x > -4$ does not include -4 (open circle) and includes all numbers greater than -4 (arrow points right).
- Choice A is correct. **(6.G.A.3)** The right side runs vertically from $(8, 1)$ up to $(8, 5)$. Its length is the difference of y -values: $|5 - 1| = 4$ units.
- The correct answer is 120. **(6.G.A.1)** Area = $15 \times 8 = 120$ square inches.
- Choice B is correct. **(6.G.A.4)** Lateral surface area (the three rectangles) = perimeter of base \times height = $18 \times 5 = 90 \text{ cm}^2$.
- Choice C is correct. **(6.RP.A.1)** Area = $\pi r^2 \approx 3.14 \times 3^2 = 3.14 \times 9 = 28.26 \text{ ft}^2$.
- Choice C is correct. **(6.SP.A.2)** The value 50 is far separated from the other values, which cluster between 5 and 12. It is an outlier that would affect the mean significantly.
- Choice C is correct. **(6.SP.B.4)** With 10 values, the median is the average of the 5th and 6th values: $(8 + 8)/2 = 8$ hours.
- The correct answer is **Both scenarios require rounding up because partial containers/buses must be counted as whole units.** **(6.NS.B.2)** A is correct: $5,432 \div 32 = 169$ remainder 24, so 170 crates are needed. C is correct: $6,250 \div 48 = 130$ remainder 10, so 131 buses are needed. B, D, and E distribute items equally with no rounding needed (they divide evenly or we report the quotient with remainder).
- Choice B is correct. **(6.SP.B.5)** The median is the middle value and is unaffected by extreme outliers. The mean, range, and standard deviation all respond strongly to outliers.
- Choice B is correct. **(6.NS.B.3)** Unlikely events have probability between 0 and 0.5. Choice B (0.15) is in this range; the others are not.
- Choice D is correct. **(6.RP.A.3)** Each section is 25% of the whole. $25\% \text{ of } 200 = 0.25 \times 200 = 50$ students per section.
- Choice D is correct. **(6.RP.A.1)** Read the words carefully: "boys to girls" means the boys number comes first. There are 8 boys and 10 girls, so the ratio is 8 to 10.
- The correct answer is 3. **(6.G.A.2)** From $V = L \times W \times H$: $120 = 8 \times 5 \times H = 40 \times H$, so $H = 3$ ft.
- Choice C is correct. **(6.RP.A.3)** Corn is the 5-part amount. Since $30 \div 5 = 6$, each part is 6 rows, and beans are 3 parts: $3 \times 6 = 18$ rows.



Trail Guide's Final Note

Hi, Brave Trail-Walker!

◇ You walked all 8 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

Guide's tip: on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

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

Jay Daie

Your Math Trail Guide

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students 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
- ✓ Building Confidence



**PRACTICE TODAY.
SUCCEED TOMORROW.**

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.



Understand Key Concepts

Reinforce important math ideas aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS