

7 Colorado CMAS

Grade 6 MATH

PRACTICE TESTS

7
PRINTED
TESTS

+

2
ONLINE
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



7 Full-Length
Printed Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.



You've
Got
This!



PREPARE
PRACTICE
SUCCEED



PRACTICE
WITH PURPOSE



STRENGTHEN
MATH SKILLS



REVIEW, IMPROVE,
AND SUCCEED

7 Colorado CMAS Grade 6 Math Practice Tests

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



Seven 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 seven 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 seven-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.
Test 7	Final stamina round 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 pet store has f fish. After selling 25 fish, how many fish does it have left? Write an expression.
- A. $f + 25$ C. $f - 25$
 B. $25 - f$ D. $25f$
- 2) A dataset has $Q_1 = 8$ and $Q_3 = 20$. What is the range of the middle 50% of the data?
- A. 8 C. 20
 B. 28 D. 12
- 3) A dataset has 10 values. The smallest and largest values are removed, leaving 8 values. Which statement is always true?
- A. The new range is smaller C. The new mean is lower
 B. The new median is higher D. The new IQR must change
- 4) Marcus invests \$500 in a savings account with a simple interest rate of 3% per year. Using the formula $I = P \times r \times t$, how much interest will he earn in 4 years?

- 5) A classroom has 28 students. If 7 students ride the bus, what is the probability that a randomly selected student does **not** ride the bus?
- A. $\frac{1}{4}$ C. $\frac{3}{4}$
 B. $\frac{1}{3}$ D. $\frac{4}{5}$



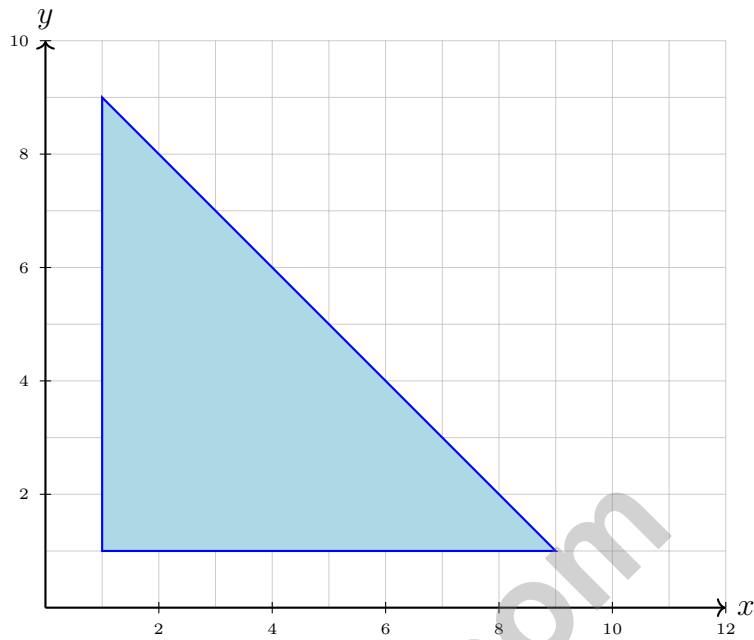
- 6) A data set contains: 43, 48, 45, 52, 50, 47, 54, 51. A student claims the stem 4 has 4 leaves. Is this claim correct?

Stem	Leaf
4	3, 5, 7, 8
5	0, 1, 2, 4

- A. Yes, because 43, 45, 47, 48 are in the 40s
- B. No, because one value is missing
- C. Yes, but some leaves are ordered incorrectly
- D. No, there are only 3 leaves in stem 4
- 7) A class has 24 students. The ratio of boys to girls is 5 : 3. How many boys are in the class?
- A. 16 boys
- B. 9 boys
- C. 20 boys
- D. 15 boys
- 8) A trapezoid has bases of 20 m and 8 m with a height of 6 m. What is the area?
- A. 28 m²
- B. 56 m²
- C. 84 m²
- D. 168 m²
- 9) The point (3, 2) is reflected across the x -axis. What are the coordinates of the reflected point?



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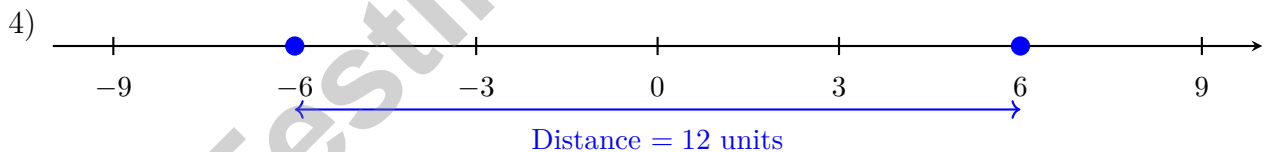
10)

What is the area of the right triangle with vertices at (1, 1), (9, 1), and (1, 9)?

- A. 32 square units
- B. 28 square units
- C. 24 square units
- D. 36 square units



- 1) A student writes the following from a stem-and-leaf plot: "Stem 3 has leaves 1, 2, 4, 5, so the values are 31, 32, 34, 35." Is this interpretation correct?
- A. Yes, the interpretation is correct C. No; the leaves should represent a different place value
- B. No; the stems should be ordered first D. No; there is no error
- 2) A bank account starts with \$1000 and earns 5% simple interest per year. After how many years will the account have earned \$250 in interest?
- A. 3 years C. 6 years
- B. 4 years D. 5 years
- 3) A scuba diver descends 25 meters below sea level. Which integer represents this situation?
- A. 25 C. -50
- B. -25 D. 50



On a number line, the distance between -6 and 6 is:

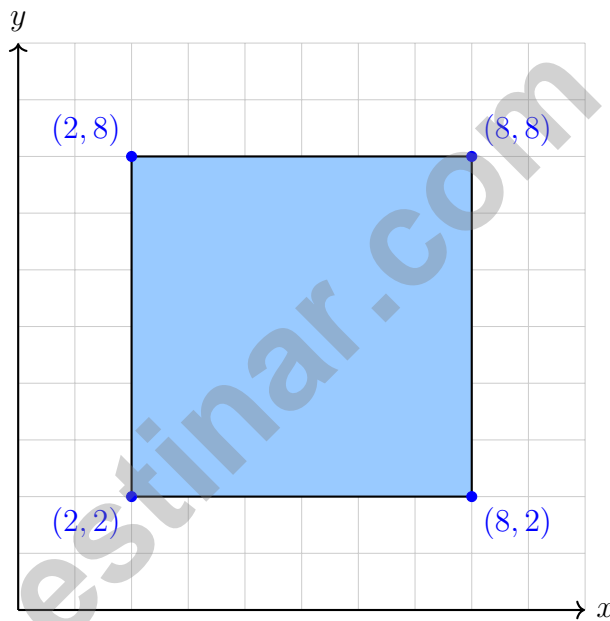
- A. 0 C. 12
- B. 6 D. -12



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1) A student incorrectly wrote $-3 + (-2) = 5$. What is the correct answer and what error did they make?

- A. -5 ; they forgot to make the sum negative C. 1 ; they forgot that two negatives sum to a negative
- B. -1 ; they forgot to add the absolute values D. -5 ; they added instead of subtracted



2)

What is the area of this square?

- A. 24 square units C. 36 square units
- B. 32 square units D. 48 square units



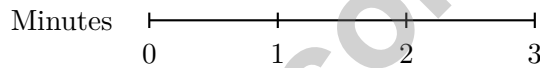
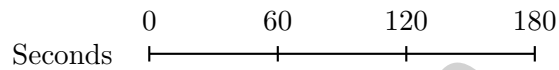
3) The image shows counters arranged to show the ratio of blue to red.



3 blue, 2 red

Which statement describes this ratio correctly?

- A. For every 3 blue there is 1 red. C. For every 2 blue there are 3 red.
 B. For every 5 blue there are 2 red. D. For every 3 blue there are 2 red.



4)

Using the double number line, how many seconds are in 2 minutes?

- A. 60 seconds C. 120 seconds
 B. 100 seconds D. 180 seconds
- 5) Evaluate: $(4 - 1) \times 2^2 - 1$
- A. 6 C. 12
 B. 20 D. 11

6) A bakery sells 24 cookies for \$6.00. What is the unit price per cookie?

- A. \$0.15 per cookie C. \$0.25 per cookie
 B. \$0.20 per cookie D. \$0.30 per cookie



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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.



Colorado Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.EE.B.6)** Selling means subtract from the total: $f - 25$ fish remain.
- 2) **Choice D is correct.** **(6.RP.A.1)** The middle 50% is the IQR: $Q_3 - Q_1 = 20 - 8 = 12$.
- 3) **Choice A is correct.** **(6.SP.B.5)** Removing min and max values always reduces the range (by definition, range = max - min). The median, mean, and IQR depend on the specific values and may or may not change.
- 4) **The correct answer is 60.** **(6.SP.B.4)** $I = \$500 \times 0.03 \times 4 = \60 . To earn interest, we apply the principal, rate, and time to the formula.
- 5) **Choice C is correct.** **(6.NS.B.3)** Students who do not ride the bus = $28 - 7 = 21$. Probability = $\frac{21}{28} = \frac{3}{4}$.
- 6) **Choice A is correct.** **(6.SP.B.4)** The values 43, 45, 47, 48 all belong to stem 4 (the 40s), giving 4 leaves. The claim is correct.
- 7) **Choice D is correct.** **(6.RP.A.1)** The whole class is split into $5 + 3 = 8$ equal ratio parts. Each part is $24 \div 8 = 3$ students, and the boys are 5 parts: $5 \times 3 = 15$.
- 8) **Choice C is correct.** **(6.G.A.1)** Area = $\frac{1}{2}(20 + 8) \times 6 = \frac{1}{2}(28)(6) = 84 \text{ m}^2$.
- 9) **The correct answer is (3, -2).** **(6.NS.C.8)** When reflecting across the x -axis, the x -coordinate stays the same and the y -coordinate changes sign. So (3, 2) becomes (3, -2).
- 10) **Choice A is correct.** **(6.G.A.1)** Base: $9 - 1 = 8$ units. Height: $9 - 1 = 8$ units. Area = $\frac{1}{2} \times 8 \times 8 = 32$ square units.
- 11) **Choice A is correct.** **(6.NS.C.8)** Reflection over the x -axis negates the y -coordinate: $(1, 2) \rightarrow (1, -2)$.
- 12) **Choice C is correct.** **(6.SP.A.3)** Mean = $\frac{1.5 + 2.5 + 3.5 + 4.5}{4} = \frac{12}{4} = 3.5$. The dashed line marks the mean.
- 13) **Choice D is correct.** **(6.NS.A.1)** 15% of \$4000 is $0.15 \times 4000 = \$600$.
- 14) **Choice B is correct.** **(6.EE.A.3)** "The difference of t and 3" starts with t , so we compute $t - 3$. Order matters: $3 - t$ gives a different result.
- 15) **Choice B is correct.** **(6.EE.B.5)** Subtract 3.5 from both sides: $x = 9.2 - 3.5 = 5.7$.
- 16) **Choice A is correct.** **(6.EE.B.8)** "More than 2" gives $s > 2$. "No more than 4" gives $s \leq 4$. Together: $s > 2$ and $s \leq 4$.
- 17) **Choice C is correct.** **(6.EE.B.8)** $x \leq -1$ means x equals -1 or is less than -1 . A closed circle (filled) includes -1 , and the arrow points left (toward smaller values).
- 18) **The correct answer is A: 6 feet = 72 inches; C: 5 meters = 500 centimeters.** **(6.RP.A.3)** A is correct: $6 \times 12 = 72$ inches. B is incorrect: $3 \times 16 = 48$ ounces, not 32. C is correct: $5 \times 100 = 500$ cm. D is incorrect: $2 \times 4 = 8$ quarts, not 10. E is incorrect because $4 \text{ km} = 4,000,000 \text{ mm}$, not 400,000 mm.
- 19) **Choice D is correct.** **(6.G.A.1)** $A = \frac{1}{2} \times 14 \times 9 = 63 \text{ cm}^2$.
- 20) **Choice C is correct.** **(6.G.A.3)** The base is horizontal from (0, 0) to (6, 0). Length = $6 - 0 = 6$ units.
- 21) **Choice D is correct.** **(6.RP.A.3)** The student's answer is too specific. A ratio of 5 : 3 means for every 5 girls there are 3 boys, but scaled amounts like 10 : 6 or 15 : 9 also fit.
- 22) **The correct answer is 300.** **(6.NS.C.8)** Distance on map: $|9 - 3| = 6$ units. Actual distance: $6 \times 50 = 300$ meters.
- 23) **Choice B is correct.** **(6.RP.A.3)** The rate is 12 : 20 or 3 : 5. For 30 papers: $30 \div 3 = 10$, so $10 \times 5 = 50$ minutes.
- 24) **The correct answer is 4.** **(6.NS.B.3)** $-8 - (-12) = -8 + 12 = 4$. Subtracting a negative integer is equivalent to adding its positive opposite.
- 25) **Choice A is correct.** **(6.RP.A.3)** $\frac{1}{5} = 0.2 = 20\%$. All three representations equal the same value.
- 26) **Choice D is correct.** **(6.RP.A.3)** Unit rate: $1.50 \div 1 = 1.50$ dollars per pound. Verify: $3 \div 2 = 1.50$ and $4.50 \div 3 = 1.50$.
- 27) **Choice C is correct.** **(6.EE.A.3)** Distribute: $5(2y + 4) = 5 \cdot 2y + 5 \cdot 4 = 10y + 20$.



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& answers

Star Player Pep Talk

Hi, Star Player!

◇ 7 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 7 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.

Jay Daie

Your Math Coach

MASTER TODAY. SUCCEED TOMORROW.

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 7 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

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.



Deeper Understanding

Reinforce key concepts aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



7 FULL-LENGTH
PRINTED TESTS



STANDARDS-
ALIGNED PRACTICE



DETAILED ANSWER
KEYS & EXPLANATIONS