

6

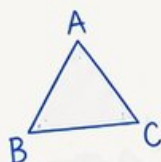
Colorado CMAS

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



6 PRINTED TESTS +2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills



SUCCEED

Build confidence and achieve your best

6 Colorado CMAS Grade 6 Math Practice Tests

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



Six 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



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Colorado Math Explorer!

Eight focused rounds using mountain-ready math thinking

This book gives you six 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 six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	30
★ Practice Test 3	_____	45
★ Practice Test 4	_____	62
★ Practice Test 5	_____	76
★ Practice Test 6	_____	93
Practice Test Answer Keys	_____	109
Practice Test Answers and Explanations	_____	113

Expression: $5(2a + 3)$

Distribute 5:

$$5 \times 2a = 10a$$

$$5 \times 3 = 15$$

Result: $10a + 15$

1)

Use the distributive property diagram above. What is $6(3b - 2)$?

A. $18b - 12$

C. $18b - 2$

B. $9b - 8$

D. $3b - 12$

2) What is $6,216 \div 38$?

A. 163

C. 165

B. 164

D. 168

3) A taxi charges \$3 per mile. What is the fare for 12 miles?

4) Estimate: 8.9×6.2 . Which is closest?

A. 54

C. 45

B. 63

D. 15



5) Which expression is equivalent to $30 + 45$?

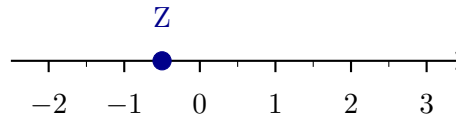
A. $5(6 + 9)$

C. $3(10 + 15)$

B. $15(2 + 3)$

D. $6(5 + 7.5)$

6) The number line below has specific labeled points. What is the value of point Z?



A. -1

C. 0

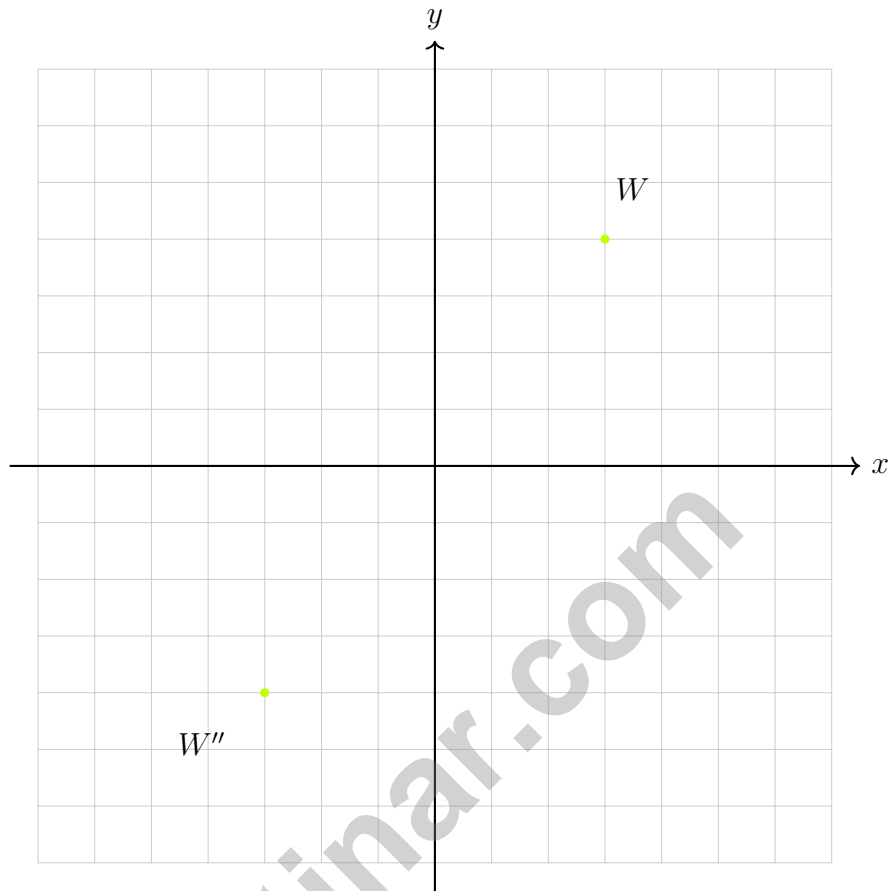
B. $\frac{1}{2}$

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

7) Find the area of a triangle with base 25 feet and height 8 feet.



Scan me!
For more practice
& answers

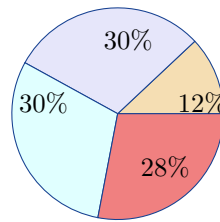


8)

If point W is at $(3, 4)$ and point W'' is at $(-3, -4)$, what transformation(s) would move W to W'' ?

- A. Reflection across the x -axis only
- B. Reflection across the y -axis only
- C. Reflection across both axes
- D. Reflection across the origin



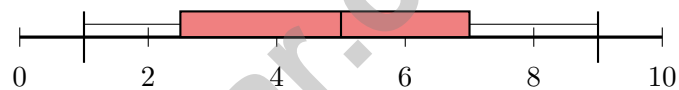


1)

In a circle graph, if a section has a central angle of 43.2° , what percent does it represent?

- A. 12% C. 18%
 B. 15% D. 20%

2) Use the box plot below. If the minimum value is 5 and $Q_1 = 12$, what is the length of the lower whisker?



- A. 5 C. 8
 B. 7 D. 12

3) Two test groups: Group 1 mean = 75, SD = 5; Group 2 mean = 80, SD = 8. Which statement is best?

- A. Group 1 performed better and was more consistent. C. Both groups are identical.
 B. Group 2 performed better but was more variable. D. Group 1 is more variable.



Scan me!
For more practice
& answers

1) Which expression contains a term with coefficient -2 ?

A. $3x + 4y - 5$

C. $5a + 3b$

B. $-2m + 7n + 1$

D. $2p - 6q + 8$

2) A recipe calls for 3 cups of flour and 9 cups of sugar. What is the simplified ratio of flour to sugar?

A. $1 : 3$

C. $1 : 9$

B. $3 : 9$

D. $9 : 3$

3) A pet store mixes dog and cat food in a $4 : 1$ ratio. How much cat food is needed if the store mixes 20 pounds of dog food?

Dog Food (lb)	Cat Food (lb)
4	1
8	2
20	?

A. 4

C. 6

B. 5

D. 8

4) Convert $\frac{7}{20}$ to a decimal and percent.

A. 0.35 and 35%

C. 0.25 and 25%

B. 0.7 and 70%

D. 0.307 and 30.7%



Scan me!
For more practice
& answers

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.



Scan me!
For more practice
& answers

Colorado Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- Choice A is correct.** **(6.EE.A.3)** Following the diagram: $6 \times 3b = 18b$ and $6 \times 2 = 12$ (subtract because of the minus). Result: $18b - 12$.
- Choice A is correct.** **(6.NS.B.2)** $6,216 \div 38 = 163$ remainder 22. Verify: $38 \times 163 + 22 = 6,216$.
- The correct answer is 36.** **(6.EE.C.9)** Multiply $3 \times 12 = 36$.
- Choice A is correct.** **(6.NS.B.3)** Round: $8.9 \approx 9$ and $6.2 \approx 6$. Then $9 \times 6 = 54$. The exact answer is 55.18, which is closest to 54.
- Choice B is correct.** **(6.NS.B.4)** GCF of 30 and 45 is 15. So $30 + 45 = 15(2 + 3)$. Choice A uses GCF 5, which works but is not the greatest. Choice B is correct.
- Choice D is correct.** **(6.SP.B.4)** Point Z is halfway between -1 and 0 , which equals $-\frac{1}{2}$.
- The correct answer is 100.** **(6.G.A.1)** $A = \frac{1}{2} \times 25 \times 8 = 100 \text{ ft}^2$.
- Choice C is correct.** **(6.NS.C.8)** To go from $(3, 4)$ to $(-3, -4)$, both the x -coordinate sign and y -coordinate sign must change. This requires reflection across both the x -axis and y -axis.
- Choice D is correct.** **(6.NS.C.8)** Distance: $|10 - 2| = 8$ units. The x -coordinate b can be any value; distance depends only on differing coordinates.
- Choice C is correct.** **(6.NS.B.3)** The distance from -8 to 6 is $6 - (-8) = 6 + 8 = 14$ units.
- Choice A is correct.** **(6.EE.A.1)** $3^2 = 3 \times 3 = 9$. Option B: $2^3 = 8$. Option C: $1^9 = 1$. Option D: $3 \times 3^2 = 3 \times 9 = 27$.
- Choice A is correct.** **(6.EE.A.3)** "Three times a number n " is $3n$. "The quotient of $3n$ and 4" means divide $3n$ by 4: $\frac{3n}{4}$.
- Choice B is correct.** **(6.EE.A.4)** Option B has exactly 3 terms: $3a$, $2b$, and c . Options A, C, and D have different numbers of terms.
- Choice C is correct.** **(6.EE.B.6)** "2 times the flour" means multiply c by 2.
- Choice A is correct.** **(6.EE.B.5)** Substitute $x = 3$ into the equation. Check: $\frac{3}{3} = 1$ is true.
- Choice C is correct.** **(6.EE.B.8)** "More than 30" is $t > 30$. "Stop before 60" is $t < 60$. Together: $t > 30$ and $t < 60$.
- Choice C is correct.** **(6.EE.B.8)** The open circle at 5 indicates 5 is not included. The arrow points right (toward greater values), so $x > 5$.
- Choice D is correct.** **(6.G.A.3)** The quadrilateral has one pair of parallel sides (top and bottom are parallel). This makes it a trapezoid.
- Choice C is correct.** **(6.G.A.4)** Lateral surface area = perimeter \times height = $(6 + 7 + 7) \times 9 = 20 \times 9 = 180 \text{ cm}^2$.
- Choice B is correct.** **(6.RP.A.1)** Area = $\pi r^2 \approx \frac{22}{7} \times 11^2 = \frac{22}{7} \times 121 = \frac{2662}{7} = 380 \text{ m}^2$.
- Choice D is correct.** **(6.SP.A.2)** When mean $<$ median, the distribution is skewed left. Small outliers on the left pull the mean down below the median.
- The correct answer is A uses the division method; E verifies the answer..** **(6.NS.A.1)** A correctly divides: $4 \div \frac{1}{3} = 12$ bottles. E checks: $12 \times \frac{1}{3} = 4$ gallons. B multiplies but gets total juice, not bottle count. C divides backwards. D is conceptually sound but cumbersome.
- The correct answer is 2.** **(6.G.A.1)** Using $A = \frac{1}{2}(b_1 + b_2) \times h$: $80 = \frac{1}{2}(14 + b_2) \times 10 = 5(14 + b_2)$. So $16 = 14 + b_2$, giving $b_2 = 2$ ft.
- Choice A is correct.** **(6.SP.A.3)** A higher MAD indicates greater average distance from the mean, so Set X with MAD = 3.5 has more spread than Set Y with MAD = 1.8.
- Choice B is correct.** **(6.SP.B.4)** The value 6 has the most dots (5), making it the mode. The other statements are false: only 2 have 4 pencils, and there are 2 with 7 pencils.



Scan me!
For more practice
& answers

Hi, Math Athlete!

◇ 6 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

PRACTICE 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 6 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.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS