

10

Maryland MCAP

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



10 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



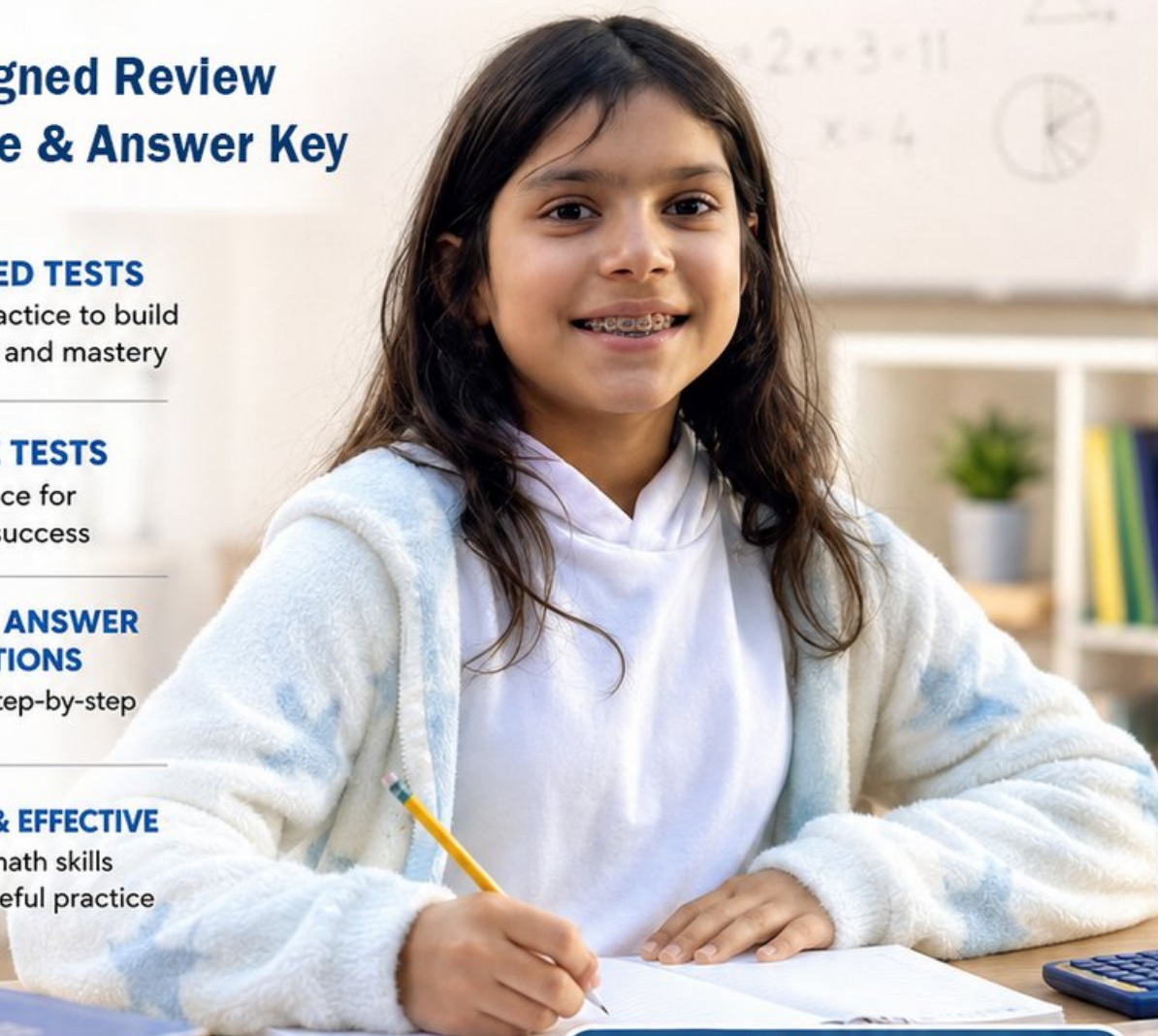
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



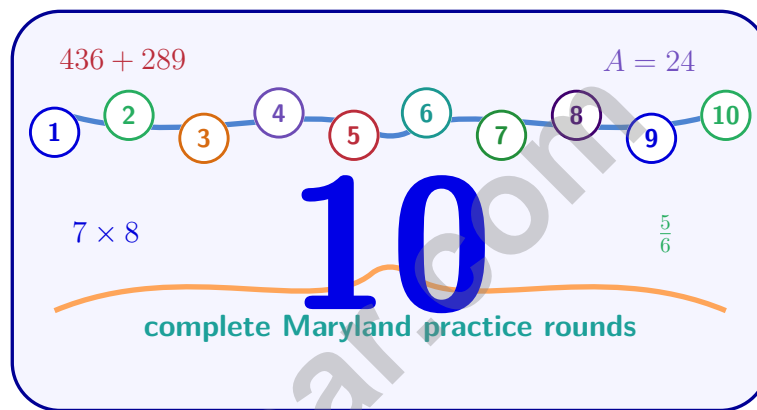
10 PRINTED TESTS
+ 2 ONLINE TESTS

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

PRACTICE • REVIEW • SUCCEED

10 Maryland MCAP Grade 6 Math Practice Tests

Standards-Aligned Bridge-Building Reasoning for Maryland Comprehensive Assessment Program



Ten complete 40-question Grade 6 practice rounds for MCAP, 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, Maryland Math Explorer!

Ten steady rounds on a Chesapeake math route

This book gives you ten full Grade 6 practice tests for MCAP. Each round uses bay bridges, harbor views, and thoughtful review choices as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Maryland Practice Promise

Connect the question to the correct skill before solving. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

How to Use This Book

A ten-session routine for bridge-building reasoning

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

Maryland review rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



What Is Inside?

Ten MCAP tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Maryland round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Bridge-building reasoning means recognizing the skill even when the next question changes topic.



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& answers

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6) Which product has three decimal places?

A. $1.2 \times 3.5 = 4.20$

C. $2.1 \times 0.1 = 0.21$

B. $3.2 \times 4 = 12.8$

D. $0.5 \times 0.04 = 0.020$

7) A standard die is rolled. What is the probability of rolling a 1 or a 2?

A. $\frac{1}{6}$

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

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

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

8) In a double-bar graph comparing boys and girls in different clubs, the art club shows 15 boys and 20 girls, music shows 12 boys and 18 girls, and sports shows 25 boys and 22 girls.

In how many clubs do girls have more members than boys?

 A. 0 clubs

 C. 2 clubs

 B. 1 club

 D. 3 clubs

9)



The dots show blue and red counters. What is the ratio of blue to red in fraction form?

A. $\frac{6}{9}$

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

B. $\frac{3}{9}$

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

10) A jewelry maker uses beads in a pattern: 4 red beads for every 6 blue beads. Which statement is NOT correct?

 A. The ratio of red to blue is 4 : 6.

 D. For every 3 red beads there are 4 blue beads.

 B. The ratio simplifies to 2 : 3.

 C. For every 2 red beads there are 3 blue beads.


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

12) A pool fills at a rate of 12 gallons per minute. How many gallons will it contain after $\frac{1}{2}$ hour?

- A. 12 gallons C. 360 gallons
 B. 30 gallons D. 720 gallons

13) A store sells packs of pencils. 5 packs cost \$12.50, and 8 packs cost \$19.20. Which is the better deal per pack?

- A. 8 packs at \$2.40 per pack C. 5 packs at \$1.25 per pack
 B. 5 packs at \$2.50 per pack D. 8 packs at \$2.50 per pack

14)

Proportional Relationship

Quantity A	Quantity B	Ratio
8	12	2 : 3
10	15	?
12	18	2 : 3

What ratio should fill the ? in the table above?

- A. 1 : 2 C. 2 : 5
 B. 2 : 3 D. 3 : 4



1) Simplify: $8 - 2x + 5x + 3 + x$.

A. $4x + 8$

B. $14x + 3$

C. $6x + 11$

D. $4x + 11$

2) Evaluate $2n - 7$ when $n = 15$.

3) Which net is NOT a valid net for a rectangular prism?

A. Cross with 1×4 center and two squares on opposite sides

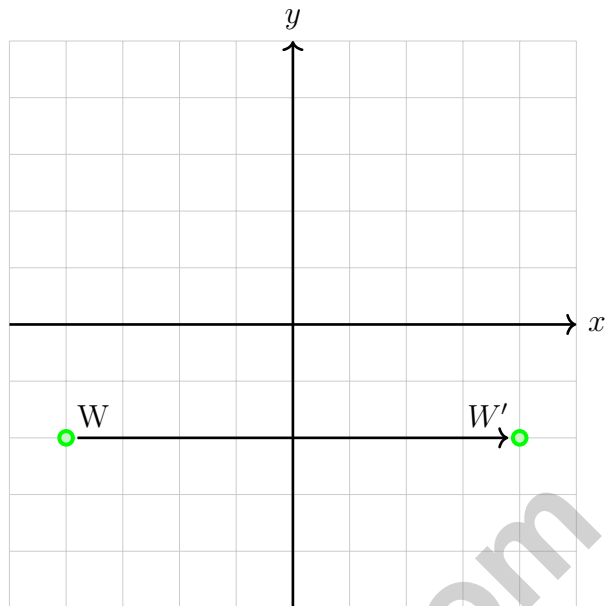
B. Two 2×3 rectangles stacked vertically

C. Line of 6 squares

D. T-shape with 3×2 base and three rectangles attached



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4)

Which transformation maps $W(-4, -2)$ to $W'(4, -2)$?

- A. Reflection over the x -axis C. Translation 8 units right
 B. Reflection over the y -axis D. Translation 4 units up

5) A sports analyst wants to study the heights of basketball players in a league. She measures 12 players. What is the population?

- A. The 12 players she measured C. All people who play sports
 B. The height measurements she recorded D. All basketball players in the league



1) A plant grows 2.5 cm, 3 cm, 2 cm, and 4.5 cm over four weeks. What is the mean growth per week?

A. 2.5 cm

C. 3 cm

B. 2.75 cm

D. 3.5 cm

2) A table shows the ratio relationship between tennis balls and tennis rackets in a sports storage room:

Tennis Balls	Tennis Rackets
6	2
9	3
15	5

If this is graphed with tennis balls on the x-axis and tennis rackets on the y-axis, what is the equation of the proportional relationship?

A. $y = 3x$

C. $y = x + 4$

B. $y = \frac{1}{3}x$

D. $y = 6x$

3) Which decimal is equivalent to 88%?

A. 0.088

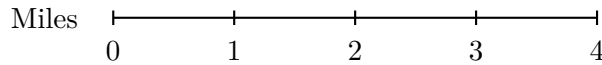
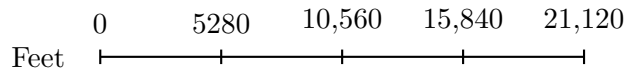
C. 8.8

B. 88.0

D. 0.88



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4)

Using the double number line, how many feet are in 3 miles?

- A. 5280 feet C. 15840 feet
 B. 10560 feet D. 21120 feet

5) Maya sells handmade bracelets. She earned \$180 in total sales. Her supplies cost \$45. What is her profit?

- A. \$90 C. \$135
 B. \$125 D. \$180

6) A jogger runs 2.25 km in the morning and 3.75 km in the evening. What is the total distance?



- A. 6.0 km C. 6.5 km
 B. 5.75 km D. 5.0 km

Maryland MCAP Practice Test Answer Keys

How to use this section with a Grade 6 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 D is correct.** **(6.NS.C.7)** Substitute $n = 8$: $15(8) + 6 = 120 + 6 = 126$ flowers.
- 2) **Choice C is correct.** **(6.G.A.1)** Shortfall: 15% of $\$20,000 = 0.15 \times 20,000 = \$3,000$.
- 3) **Choice C is correct.** **(6.G.A.1)** Actual dimensions: $4 \times 10 = 40$ km and $6 \times 10 = 60$ km. Area: $40 \times 60 = 2,400$ km².
- 4) **Choice C is correct.** **(6.SP.A.3)** Depreciation is 15% of $\$20,000 = 0.15 \times 20,000 = \$3,000$. Value after one year is $\$20,000 - \$3,000 = \$17,000$.
- 5) **Choice C is correct.** **(6.SP.B.5)** Scale: 1 inch = 10 miles. Distance: $3.5 \times 10 = 35$ miles.
- 6) **Choice D is correct.** **(6.SP.B.4)** 0.5 has 1 place and 0.04 has 2 places, giving $1 + 2 = 3$ places total: 0.020.
- 7) **Choice B is correct.** **(6.NS.A.1)** Favorable outcomes: 1 and 2 (two outcomes). Total outcomes: 6. Probability $= \frac{2}{6} = \frac{1}{3}$.
- 8) **Choice C is correct.** **(6.NS.B.4)** Art: girls (20) > boys (15). Music: girls (18) > boys (12). Sports: boys (25) > girls (22). Girls have more members in 2 clubs (art and music).
- 9) **Choice D is correct.** **(6.EE.A.3)** Count blue first and red second: there are 6 blue and 3 red, so the ratio is $\frac{6}{3}$. Divide the numerator and denominator by 3 to get $\frac{2}{1}$, which means there are 2 blue counters for every 1 red.
- 10) **Choice D is correct.** **(6.EE.A.3)** The bead pattern is 4 : 6, which simplifies to 2 : 3. Choice D says 3 : 4, which changes the relationship, so it is the statement that is not correct.
- 11) **The correct answer is 36.** **(6.EE.B.5)** Multiply $3 \times 12 = 36$.
- 12) **Choice C is correct.** **(6.RP.A.1)** Convert $\frac{1}{2}$ hour to minutes: $\frac{1}{2} \times 60 = 30$ minutes. Multiply by the rate: $12 \times 30 = 360$ gallons.
- 13) **Choice A is correct.** **(6.RP.A.1)** Compare the unit prices. The 5-pack costs $12.50 \div 5 = \$2.50$ per pack, while the 8-pack costs $19.20 \div 8 = \$2.40$ per pack. The lower unit price is the better deal.
- 14) **Choice B is correct.** **(6.NS.C.8)** Each row maintains the ratio 2 : 3. Row 1: $8 : 12 = 2 : 3$ (divide by 4). Row 2: $10 : 15 = 2 : 3$ (divide by 5). Row 3: $12 : 18 = 2 : 3$ (divide by 6). All rows have the ratio 2 : 3.
- 15) **Choice A is correct.** **(6.EE.A.1)** The correct x-coordinate is 4, but the student read 2, which is half of 4. This is a common error when reading values from a coordinate plane, especially with scaled axes.
- 16) **Choice D is correct.** **(6.EE.A.3)** Percent means "per 100." So $72\% = \frac{72}{100}$.
- 17) **The correct answer is 44.** **(6.EE.A.4)** $V = 5.5 \times 2 \times 4 = 11 \times 4 = 44$ m³.
- 18) **Choice D is correct.** **(6.NS.B.4)** Multiply: $120 \times 3 = 360$ feet.
- 19) **Choice A is correct.** **(6.EE.B.6)** Food is 25% of the budget: $0.25 \times \$1,200 = \300 .
- 20) **Choice A is correct.** **(6.SP.A.2)** Plan P: cost = $8m$ (proportional, passes through origin). Plan Q: cost = $20 + 3m$ (not proportional, has initial constant term).
- 21) **The correct answer is A closed circle at -2 and an arrow pointing left.** **(6.EE.B.8)** For $x \leq -2$: (A) is wrong—-2 is included (\leq means equal to). (B) is correct—closed circle for \leq . (C) is correct—arrow points left for values less than or equal to -2. (D) is wrong—closed, not open, circle. (E) is wrong—the solution includes 0 and positive numbers if the number line extends right, but we focus on values ≤ -2 .
- 22) **Choice D is correct.** **(6.EE.B.8)** If $\frac{2}{5}$ lap takes $\frac{1}{3}$ minute, one lap takes $\frac{1}{3} \div \frac{2}{5} = \frac{1}{3} \times \frac{5}{2} = \frac{5}{6}$ minute.
- 23) **Choice C is correct.** **(6.EE.C.9)** The number line shows the relationship: 0 to 4,392 on the bottom corresponds to 0 to 244 on the top. The quotient is the top label, which is 244. Verify: $18 \times 244 = 4,392$.
- 24) **Choice A is correct.** **(6.NS.B.3)** If $9(2 + 7) = 9 \cdot 2 + 9 \cdot 7 = 18 + 63$, then the missing factor is 9.
- 25) **Choice D is correct.** **(6.G.A.2)** Absolute value represents distance from zero. Both 6 and -6 are exactly 6 units away from zero, so $|6| = |-6| = 6$.
- 26) **Choice C is correct.** **(6.SP.B.4)** Computing: $|-11| = 11$, $|-7| = 7$, $|4| = 4$, $|-9| = 9$. The smallest is 4.
- 27) **Choice B is correct.** **(6.NS.B.3)** The point 2.6 is six tenths of the way from 2 to 3, making it exactly the position given.



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& answers

Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen 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



**CONFIDENCE TODAY.
SUCCESS 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.



Deepen Understanding

Reinforce key math concepts 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
- ✓ 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.



10 PRINTED
PRACTICE TESTS



2 ONLINE
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DETAILED ANSWER
EXPLANATIONS