

# 6

# Maryland MCAP

GRADE

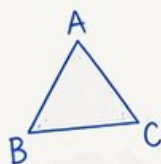
# 6

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 Maryland MCAP Grade 6 Math Practice Tests

*Standards-Aligned Chesapeake Review Precision for Maryland Comprehensive Assessment Program*



Six complete 40-question Grade 6 practice rounds for MCAP, built for Chesapeake review precision 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!

Eight focused rounds using Chesapeake review precision

This book gives you six full Grade 6 practice tests for MCAP. Each round uses bay bridges, classroom charts, and careful explanation habits 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 facts before solving: identify the relationship, choose the tool, and explain the answer.

Read

Plan

Check

## How to Use This Book

A six-session routine for Chesapeake review precision

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

**Maryland review rhythm:** Take one round, use the answer explanations as a bridge, and return with a cleaner plan.



## What Is Inside?

Eight MCAP 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. Chesapeake review precision 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) Joel is  $y$  years old. His sister is 4 years older than Joel. Which expression represents the sister's age?

A.  $y - 4$

B.  $y + 4$

C.  $4y$

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

2) Which statement is true?

A.  $-10 < -5$

B.  $-5 > 0$

C.  $-3 > -8$

D.  $0 < -1$

3) On an elevator, someone travels down 7 floors (represented as  $-7$ ). How far did they travel in terms of absolute value?

A.  $-7$  floors

B. 7 floors

C. 0 floors

D. 14 floors

4)



Which two numbers are equally far from zero?

A.  $-3$  and 1

B. 2 and 2

C.  $-4$  and 4

D.  $-2$  and 2

5) A store's inventory was 500 items. They sold 120 items and received 80 new items. How many items are in inventory now?

A. 300 items

B. 380 items

C. 460 items

D. 700 items



6) Evaluate:  $12 \div 2 + 3 \times 2$

A. 6

C. 15

B. 20

D. 12

7) Write an expression for “a number  $w$  tripled and then increased by 10”.

A.  $3(w + 10)$

C.  $w + 3 + 10$

B.  $3w + 10$

D.  $3 + w + 10$

8) Which expression has exactly 3 terms?

A.  $x + y$

C.  $5 + 4 + 3 + 2 + 1$

B.  $3a + 2b + c$

D.  $m$

9) The perimeter of a square is  $P = 4s$ . Find  $P$  when  $s = 5$ .

A. 9

C. 25

B. 20

D. 40

10) Solve for  $x$ :  $\frac{x}{5} = 3$

A.  $x = \frac{3}{5}$

C.  $x = 8$

B.  $x = 2$

D.  $x = 15$

11) To qualify for a school club, you must have no less than a 3.0 grade point average. Which inequality describes the minimum GPA  $g$ ?

A.  $g < 3.0$

C.  $g \leq 3.0$

B.  $g > 3.0$

D.  $g \geq 3.0$



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12) A car rental requires drivers to be at least 18 years old. Which inequality represents this requirement?

A.  $d > 18$

B.  $d < 18$

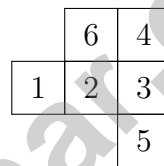
C.  $d \leq 18$

D.  $d \geq 18$

13) Three rectangles on a coordinate plane have the following dimensions: Rectangle A is  $4 \times 5$ ; Rectangle B is  $2 \times 10$ ; Rectangle C is  $3 \times 7$ . Which two rectangles have equal areas?

 A. Rectangles A and B B. Rectangles B and C C. Rectangles A and C D. All three have different areas.

14) A cube net shows 6 unit squares. When folded, which pair of faces are opposite each other?

 A. 1 and 3 B. 2 and 5 C. 3 and 4 D. 1 and 6

- 1) A student says the coefficient of  $x$  in  $x + 5$  is 0 because there is no number in front of  $x$ . Is this correct?
- A. Yes, when no number is written, the coefficient is 0.
- B. No, when no number is written, the coefficient is 1.
- C. No, the coefficient is the constant 5.
- D. Yes, but only if  $x$  appears at the end.
- 2) Comparing two data sets: Set P has range 20 and Set Q has range 15. Both have the same mean. What conclusion can you draw?
- A. Set P is more spread out than Set Q.
- B. Set Q is more spread out than Set P.
- C. Both sets have identical distributions.
- D. Range is not useful for comparing data sets.
- 3) A box plot shows: min = 12,  $Q_1 = 18$ , median = 24,  $Q_3 = 30$ , max = 42. What is the IQR?
- A. 6
- B. 30
- C. 18
- D. 12
- 4) Store daily sales (in dollars): mean = \$500, median = \$480. Which day was likely a special event?
- A. A day with very low sales below the median
- B. A day with sales exactly at the mean
- C. A day with very high sales above the median
- D. Cannot be determined



5) Which fraction best represents an event that is **very likely** to occur?

A.  $\frac{1}{10}$

B.  $\frac{2}{5}$

C.  $\frac{4}{5}$

D.  $\frac{1}{20}$

6) Which display would be BEST for showing a student's growth in math test scores over an entire school year?

A. Line graph

B. Circle graph

C. Bar graph of categories

D. Pictograph

7) Which phrase shows a price rate?

A. Ten students in a class

B. Seventy cents per pound

C. Four players on a team

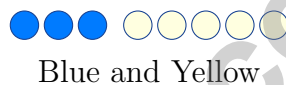
D. Six wheels on a car

8) A circle graph displays survey results for 480 people. The chart shows  $\frac{5}{12}$  of people prefer coffee. How many people prefer coffee?



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- 1) A car travels 240 miles in 4 hours. What is the unit rate in miles per hour?
- A. 60 mph  C. 64 mph  
 B. 56 mph  D. 80 mph
- 2) Runner A completes 5 miles in 40 minutes. Runner B completes 6 miles in 48 minutes. Who is faster?
- A. Runner A  C. They are equally fast  
 B. Runner B  D. Cannot be determined
- 3) A student is shown this dot diagram with 3 blue dots and 5 yellow dots.



- The student says: “There are 3 blue dots out of 5 total.” Why is this statement incorrect?
- A. There are 3 blue and 5 yellow, so the total is 8, not 5.  C. Blue dots should be counted after yellow dots.  
 B. The ratio of blue to yellow is 5 : 3, not 3 : 5.  D. The statement is correct.
- 4) A car uses 6 gallons of gas to travel 150 miles. What is the fuel efficiency in miles per gallon?
- A. 20 miles per gallon  C. 30 miles per gallon  
 B. 25 miles per gallon  D. 156 miles per gallon





## Maryland MCAP Practice Test Answer Keys

**How to use this Maryland MCAP 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 Chesapeake review precision
3. rework the problem before reading the full explanation, using this reminder: Connect the facts before solving: identify the relationship, choose the tool, and explain the answer.

**A calm Maryland correction routine turns every missed item into useful practice. Take one round, use the answer explanations as a bridge, and return with a cleaner plan.**



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## Maryland Practice Test Answers and Explanations

Review the six printed MCAP tests with connected, precise, and ready for the next review habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **6.EE.B.6** “4 years older” means add 4 to Joel’s age:  $y + 4$ .
- 2) **Choice C is correct.** **6.NS.C.5** On a number line,  $-3$  is to the right of  $-8$ , so  $-3$  is greater than  $-8$ . The fewer negative units from zero, the greater the number.
- 3) **Choice B is correct.** **6.SP.B.4** Distance traveled is always positive. The absolute value  $|-7| = 7$  floors represents the magnitude of the distance.
- 4) **Choice D is correct.** **6.NS.C.7** Numbers are equally far from zero if their absolute values are equal.  $|-2| = |2| = 2$ . The shown points  $-3$  and  $1$  are not equally distant.
- 5) **Choice C is correct.** **6.EE.A.3**  $500 - 120 + 80 = 460$  items in inventory.
- 6) **Choice D is correct.** **6.EE.A.1** Divide and multiply from left to right:  $12 \div 2 = 6$  and  $3 \times 2 = 6$ . Then add:  $6 + 6 = 12$ .
- 7) **Choice B is correct.** **6.EE.A.3** “Tripled” means multiply by 3, giving  $3w$ . “Increased by 10” means add 10:  $3w + 10$ .
- 8) **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.
- 9) **Choice B is correct.** **6.EE.A.3** Substitute  $s = 5$ :  $P = 4(5) = 20$  units.
- 10) **Choice D is correct.** **6.EE.B.5** Multiply both sides by 5:  $x = 3 \times 5 = 15$ .
- 11) **Choice D is correct.** **6.EE.B.8** “No less than 3.0” means 3.0 or more:  $g \geq 3.0$ .
- 12) **Choice D is correct.** **6.EE.B.8** “At least 18” means “greater than or equal to 18,” so the inequality is  $d \geq 18$ .
- 13) **Choice A is correct.** **6.G.A.1** Rectangle A:  $4 \times 5 = 20$  sq. units. Rectangle B:  $2 \times 10 = 20$  sq. units. Rectangle C:  $3 \times 7 = 21$  sq. units. Rectangles A and B have equal areas.
- 14) **Choice B is correct.** **6.G.A.4** In this cross-pattern net, square 3 is at the center, with 2 to its left, 4 above, and 5 below. When folded, 2 and 5 (which are on opposite sides of 3 in the net) end up on opposite faces of the cube.
- 15) **Choice B is correct.** **6.NS.C.8** The  $x$ -coordinate stays the same;  $7 - 3 = 4$ , so the point moves 4 units down.
- 16) **The correct answer is 6.** **6.EE.A.3** Combine  $n$  terms:  $2n + 4n = 6n$ .
- 17) **Choice C is correct.** **6.RP.A.1** The student calculated  $\pi r \approx 3.14 \times 4 = 12.56$  (which is the circumference formula). The correct area is  $\pi r^2 \approx 3.14 \times 16 = 50.24 \text{ m}^2$ .
- 18) **Choice B is correct.** **6.SP.A.2** A sample is a subset of the population. The students who answered are the sample; the full population would be all students you want to study (e.g., all sixth graders).
- 19) **Choice C is correct.** **6.SP.A.2** Mode identifies the most frequently sold shoe size, which best represents the “typical” size. Mean and median average sizes; range describes spread.
- 20) **The correct answer is 14.** **6.EE.C.9** Multiply  $2 \times 7 = 14$ .
- 21) **Choice B is correct.** **6.SP.A.2** Data: 1, 2, 2, 3, 3, 3, 4, 4, 5. The median (middle of 9 values) is the 5th value: 3.
- 22) **The correct answer is A and C are correct.** **6.RP.A.3** A:  $6 \times 3 = 18$  feet (correct). B:  $4 \times 3 = 12$  feet, not 10 (incorrect). C:  $21 \div 3 = 7$  inches (correct). D:  $9 \div 3 = 3$  inches, not 2 (incorrect). E:  $5 \times 3 = 15$  feet, not 16 (incorrect).
- 23) **The correct answer is 24.** **6.G.A.1** Solving:  $84 = \frac{1}{2} \times b \times 7 \Rightarrow b = 24 \text{ m}$ .
- 24) **Choice B is correct.** **6.SP.A.3** The data set is 1, 3, 3, 5, 7, 9. Maximum = 9, minimum = 1. Range =  $9 - 1 = 8$ .
- 25) **Choice B is correct.** **6.RP.A.1** The left edge of the box is  $Q_1$ , the first quartile.
- 26) **Choice A is correct.** **6.SP.B.5** IQR =  $35 - 20 = 15$ . Upper fence =  $Q_3 + 1.5(\text{IQR}) = 35 + 22.5 = 57.5$ . Lower fence =  $Q_1 - 1.5(\text{IQR}) = 20 - 22.5 = -2.5$ . Since 5 and 50 are within fences, no outliers.
- 27) **Choice D is correct.** **6.NS.B.3** Yellow candies = 7. Total candies = 30. Probability =  $\frac{7}{30}$ .
- 28) **Choice D is correct.** **6.RP.A.3** The bars for 2 visits and 3 visits have heights of 3 and 4 respectively. Total:  $3 + 4 = 7$  students.



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## Hi, Math Champion!

◇ Look what you did! 6 full practice tests. That's hundreds of math problems. You started as a learner. You are now a math athlete. ◇

★ **Champions know:** hard work pays off. You did the hard work. Your math skills are strong because you practiced. ★

### Champion's Stats

- **Focus:** HIGH! You stay on task.
- **Speed:** STRONG! You move at the right pace.
- **Accuracy:** SHARP! You catch your own mistakes.
- **Mindset:** CHAMPION! You believe in yourself.

**Champion tip:** on test day, walk in proud. You trained for this. You are ready!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Coach

# 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