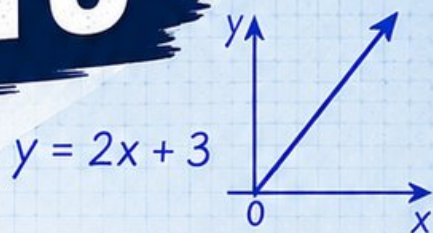


# 3 Maryland MCAP

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$36\% \text{ of } 150 = ?$



**3** | PRINTED  
TESTS



**2** | ONLINE  
TESTS



Build  
Confidence



Master Key  
Math Skills



Answer Explanations  
for Every Question

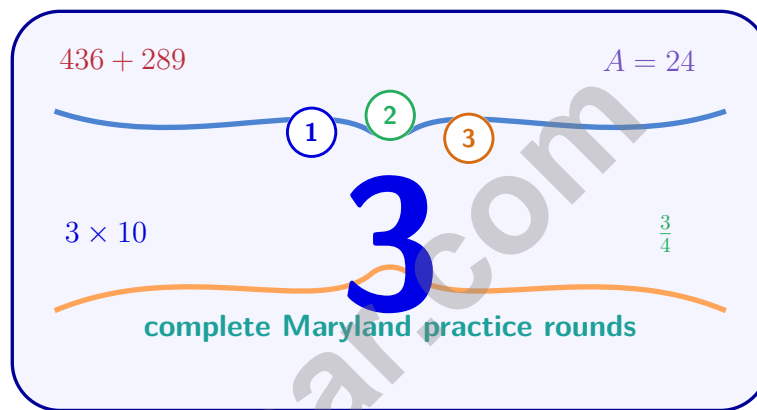


Test-Taking  
Strategies That Work

USE THESE TWO  
ADDITIONAL ONLINE  
PRACTICE TESTS  
FOR EXTRA REVIEW AFTER  
THE PRINTED TESTS  
IN THIS BOOK.

# 3 Maryland MCAP Grade 6 Math Practice Tests

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



Three 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!

Three focused rounds using Chesapeake review precision

This book gives you three 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 three-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?

Three MCAP tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
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

# Table of Contents

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- 1) An orchard has 3,920 apples to pack into crates of 20 apples each. How many crates are needed?
- A. 196                                       C. 204  
 B. 200                                       D. 210
- 2) A student graphed the relationship between tickets sold and money earned. The graph is a straight line passing through  $(0, 0)$  and  $(8, 32)$ . What is the slope of this line?
- A.  $\frac{1}{4}$      C.  $\frac{1}{8}$   
 B. 4     D. 8
- 3) A city's elevation is 385 feet above sea level. A valley is at  $-215$  feet below sea level. What is the elevation difference between the city and the valley?
- A. 170 feet                                       C. 600 feet  
 B. 385 feet                                       D.  $-215$  feet
- 4) Box X: 5 ft by 2 ft by 3 ft. Box Y: 4 ft by 2 ft by 4 ft. Which box has greater volume and by how much?
- A. Box X by  $1 \text{ ft}^3$                                C. Box X by  $2 \text{ ft}^3$   
 B. Box Y by  $1 \text{ ft}^3$                                D. Box Y by  $2 \text{ ft}^3$
- 5) On a test, Maria answered 27 out of 30 questions correctly. What percent is this (to the nearest whole percent)?
- A. 85%     C. 95%  
 B. 90%     D. 100%





- 11) A graph shows distance (in kilometers) versus time (in hours). The line passes through (0, 0) and (2, 120). What is the speed in kilometers per hour?
- A. 60 km/h                       C. 2 km/h  
 B. 120 km/h                      D. 240 km/h
- 12) From the pie chart above, what is the combined allocation for Emergency and Car?
- A. \$1600                           C. \$1900  
 B. \$1800                           D. \$2000
- 13) A scale drawing uses 1 inch = 10 feet. A square room is drawn with a side length of 2 inches. What is the actual area of the room?
- A. 20 sq ft                         C. 100 sq ft  
 B. 40 sq ft                          D. 400 sq ft
- 14) Evaluate:  $\frac{5}{6} \div \frac{1}{3}$
- A.  $\frac{5}{18}$                                  C.  $\frac{5}{2}$   
 B.  $\frac{5}{6}$                                   D.  $\frac{15}{30}$
- 15) What is  $0.06 \times 0.8$ ?
- A. 0.048                           C. 4.8  
 B. 0.48                               D. 48
- 16) Maria has 30 beads and 45 beads of two different colors. She wants to make identical bracelets with no beads left over. What is the greatest number of bracelets she can make?
- A. 15 bracelets                     C. 5 bracelets  
 B. 10 bracelets                      D. 30 bracelets



1) A horizontal line segment goes from  $(2, 7)$  to  $(10, 7)$ . What is its length?

A. 6 units

C. 8 units

B. 7 units

D. 9 units

2) Which is the MOST statistical question?

A. How many wheels does a bicycle have?

C. How many hours of sleep do sixth graders get each night?

B. What is the temperature in my room right now?

D. What color is my coat?

3) Which of the following describes the CENTER of a data set?

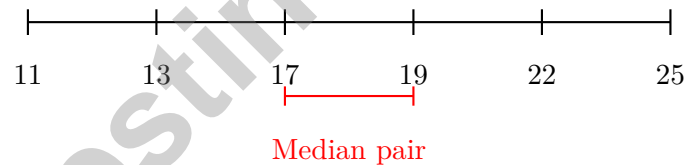
A. Range

C. Interquartile range

B. Median

D. Maximum value

4) What is the median of the 6 ordered values shown?



A. 17

C. 19

B. 18

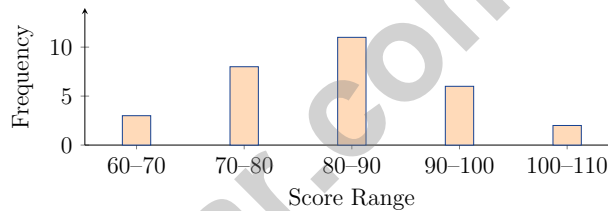
D. 20



5) A toy store records daily sales revenue over two weeks:  
 Week 1: \$180, \$200, \$195, \$210, \$190, \$205, \$215  
 Week 2: \$160, \$240, \$175, \$225, \$190, \$210, \$200  
 Both weeks have the same mean of \$199. Without calculating MAD, which week likely has a higher MAD?

- A. Week 1 has a higher MAD.                       D. Cannot be determined without calculation.  
 B. Week 2 has a higher MAD.  
 C. Both weeks have the same MAD.

6) A histogram shows quiz scores in ranges of 10 points. The bars have heights (frequencies) of 3, 8, 11, 6, 2 for ranges 60–70, 70–80, 80–90, 90–100, 100–110 respectively. How many students scored 80 or above?

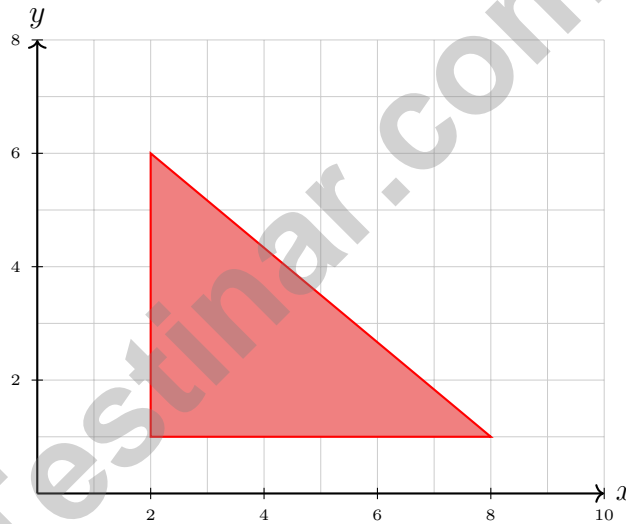


- A. 11 students     C. 19 students  
 B. 17 students     D. 30 students
- 7) A box plot shows  $\min = 20$ ,  $Q_1 = 30$ ,  $\text{median} = 40$ ,  $Q_3 = 50$ ,  $\max = 70$ . How much longer is the upper whisker than the lower whisker?
- A. 10     C. 30  
 B. 20     D. 50



Scan me!  
For more practice  
& answers

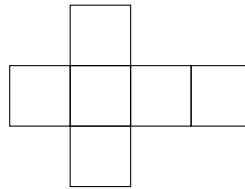
- 1) A truck delivers 840 packages in a 7-hour shift. If the truck continues at this rate, how many packages will it deliver in a 10-hour shift?
- A. 847 packages                       C. 1000 packages  
 B. 1400 packages                     D. 1200 packages
- 2) A trapezoid has an area of  $56 \text{ in}^2$  and bases of 10 in and 6 in. What is the height?
- A. 4 in                                       C. 7 in  
 B. 6 in                                       D. 14 in



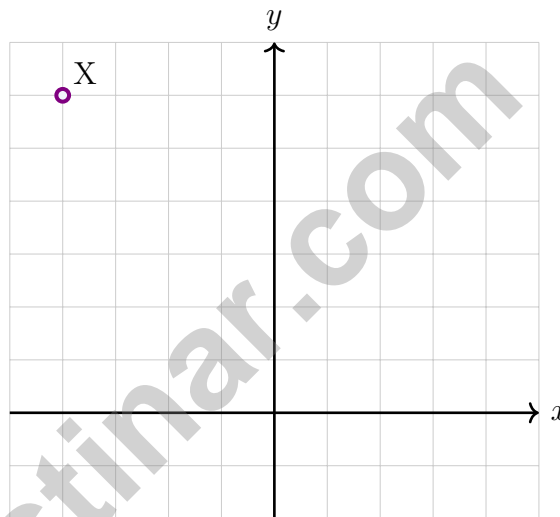
- 3) A right triangle has vertices at (2, 1), (8, 1), and (2, 6). What is its area?
- A. 12 square units                       C. 18 square units  
 B. 15 square units                       D. 20 square units



4) Which shape is a valid net of a cube?



- A. Cross pattern with 6 squares       C.  $2 \times 3$  rectangle  
 B. Line of 5 squares with 1 attached       D. Line of 4 squares only



5)

Point  $X$  starts at  $(-4, 6)$ . It is translated 4 units right and 3 units down. What are the coordinates of  $X'$ ?

- A.  $(0, 3)$        C.  $(0, 9)$   
 B.  $(-8, 9)$        D.  $(-8, 3)$



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& answers

## 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.**



Scan me!  
For more practice  
& answers

## Maryland Practice Test Answers and Explanations

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

### Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(6.NS.B.2)**  $3,920 \div 20 = 196$ . The orchard needs 196 crates.
- 2) **Choice B is correct.** **(6.RP.A.3)** The slope is  $\frac{\text{rise}}{\text{run}} = \frac{32-0}{8-0} = \frac{32}{8} = 4$ . This represents \$4 per ticket.
- 3) **Choice C is correct.** **(6.NS.B.3)** Elevation difference:  $385 - (-215) = 385 + 215 = 600$  feet.
- 4) **Choice D is correct.** **(6.G.A.2)** Box X:  $V = 5 \times 2 \times 3 = 30 \text{ ft}^3$ . Box Y:  $V = 4 \times 2 \times 4 = 32 \text{ ft}^3$ . Difference:  $32 - 30 = 2 \text{ ft}^3$ , with Box Y being larger.
- 5) **Choice B is correct.** **(6.RP.A.3)**  $\frac{27}{30} = 0.9 = 90\%$ .
- 6) **Choice A is correct.** **(6.RP.A.3)** 60% of \$35 =  $0.60 \times 35 = \$21$ . Clearance price is  $\$35 - \$21 = \$14$ .
- 7) **Choice C is correct.** **(6.RP.A.3)** Ratio 2 : 1 with 4 cups yogurt: multiply by 4, so fruit is  $2 \times 4 = 8$  cups.
- 8) **Choice A is correct.** **(6.RP.A.3)** Divide:  $64 \div 12 = 5\frac{4}{12} = 5\frac{1}{3}$  feet.
- 9) **The correct answer is 30.** **(6.RP.A.3)** Red marbles are the 3-part amount. Since  $18 \div 3 = 6$ , each part is worth 6 marbles, and blue marbles are 5 parts:  $5 \times 6 = 30$ .
- 10) **Choice C is correct.** **(6.SP.B.4)** Brand X costs  $\$3.00 \div 12 = \$0.25$  per ounce. Brand Y costs  $\$4.50 \div 15 = \$0.30$  per ounce. Brand X has the lower unit price.
- 11) **Choice A is correct.** **(6.EE.C.9)** Speed =  $\frac{\text{distance}}{\text{time}} = \frac{120 \text{ km}}{2 \text{ h}} = 60 \text{ km/h}$ . The line passes through the origin, confirming a proportional relationship.
- 12) **Choice C is correct.** **(6.EE.C.9)** Emergency and Car:  $(22\% + 16\%) = 38\%$  of \$5000 =  $0.38 \times 5000 = \$1900$ .
- 13) **Choice D is correct.** **(6.RP.A.3)** Actual side:  $2 \times 10 = 20$  feet. Area:  $20 \times 20 = 400 \text{ sq ft}$ .
- 14) **Choice C is correct.** **(6.NS.A.1)** Rewrite the division as multiplication by flipping  $\frac{1}{3} : \frac{5}{6} \times \frac{3}{1} = \frac{15}{6}$ . Simplify  $\frac{15}{6}$  to  $\frac{5}{2}$  (or mixed form  $2\frac{1}{2}$ ).
- 15) **Choice A is correct.** **(6.NS.B.3)**  $6 \times 8 = 48$ . We have  $2 + 1 = 3$  decimal places total, so 0.048 is correct.
- 16) **Choice A is correct.** **(6.NS.B.4)** This is a GCF problem. The GCF of 30 and 45 is 15. So she can make 15 bracelets with 2 beads of one color and 3 of the other in each.
- 17) **Choice A is correct.** **(6.NS.B.4)** GCF of 30 and 24 is  $2 \times 3 = 6$ . So  $30 + 24 = 6(5 + 4)$ .
- 18) **Choice D is correct.** **(6.NS.C.5)** A drop of  $20^\circ\text{C}$  means we subtract 20 from the starting temperature:  $12 - 20 = -8^\circ\text{C}$ .
- 19) **Choice A is correct.** **(6.SP.B.4)** Distance from zero is always non-negative. The absolute value  $|-9| = 9$  units.
- 20) **Choice D is correct.** **(6.SP.B.4)** Distance =  $1.5 - (-3.5) = 1.5 + 3.5 = 5$ .
- 21) **The correct answer is 4 : 6 = 2 : 3 (dividing by 2) and 4 : 6 = 8 : 12 (multiplying by 2).** **(6.RP.A.1)** Nice checking: Choice A works because  $4 : 6$  simplifies to  $2 : 3$ , and Choice B works because multiplying both parts of  $4 : 6$  by 2 gives  $8 : 12$ . The other choices change the relationship.
- 22) **The correct answer is 9 dollars per book.** **(6.RP.A.1)** Divide the total cost by the number of books:  $45 \div 5 = 9$  dollars per book.
- 23) **Choice A is correct.** **(6.NS.C.8)** Reflecting across the  $y$ -axis flips the  $x$ -coordinate to its opposite, giving  $(-a, b)$ .
- 24) **Choice C is correct.** **(6.NS.C.7)**  $R = 1$  and  $S = 5$ , so  $1 < 5$ . Note:  $S - R = 4$ , not 3.
- 25) **The correct answer is 0.25 cup.** **(6.RP.A.2)**  $8 \div 32 = 0.25$  cups (or  $\frac{1}{4}$  cup) per serving.
- 26) **Choice B is correct.** **(6.NS.C.8)** Same  $x$ -coordinate (3):  $|0 - (-1)| = |0 + 1| = 1$  unit.
- 27) **Choice D is correct.** **(6.NS.B.3)** Negative times positive is negative:  $(-3) \times 5 = -15$ . Negative times negative is positive:  $(-3) \times (-5) = 15$ .
- 28) **Choice C is correct.** **(6.EE.A.3)** Site A:  $500 - 80 = 420$  m. Site B is 150 m lower:  $420 - 150 = 270$  m.



**Cheer Squad Final Pep Talk**

---

**Hi, Math Star!**

◇ 3 practice tests! That's a LOT of work, and you did it ALL. I am cheering so loud right now. You earned every clap and every cheer! ◇

★ **Cheerleader truth:** confidence is built by showing up. You showed up 3 times. That's real confidence. It is not pretend! ★

**Cheer Roll Call**

- **Effort:** 100% YOU SHOWED UP!
- **Heart:** BIG!
- **Skills:** STRONG and growing!
- **Spirit:** BRIGHT!

**Cheer tip:** on test day, be your own cheerleader. Whisper to yourself: "I can do this. I practiced." Tiny cheers make a big difference!

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 Cheerleader

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 full-length Math practice tests and 2 online tests to help Grade 6 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## THIS BOOK INCLUDES:

- 3 Full-Length Printed Tests
  - 2 Online Practice Tests
-  Detailed Answer Explanations

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

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Build a solid foundation through targeted practice and review.



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Develop logical thinking and effective solution strategies.



### Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



### Test Confidence

Familiarize 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

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



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