

7 Maryland MCAP

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



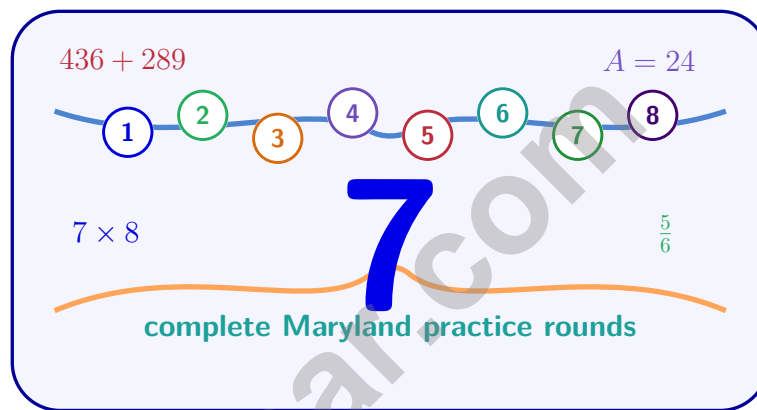
STRENGTHEN
MATH SKILLS



REVIEW, IMPROVE,
AND SUCCEED

7 Maryland MCAP Grade 6 Math Practice Tests

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



Seven 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 seven 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 seven-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 1–3	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. 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) On a number line, which pair of numbers are NOT equidistant from zero?

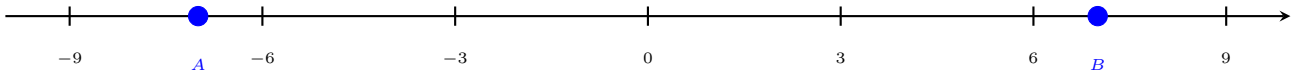
A. -2.5 and 2.5

C. -1.2 and 1.3

B. $-\frac{3}{4}$ and $\frac{3}{4}$

D. -0.8 and 0.8

2)



On a number line, point A is at -7 and point B is at 7 . What is the distance between them?

3) A student calculated the range of a data set as 50 and found the IQR to be 25. Which statement is always true?

A. The IQR is larger than the range.

D. The middle 50% of data spreads

B. The range is smaller than the IQR. over 25 units.

C. Q_1 and Q_3 must be equal.

4) In a dataset, the median is 60 and the IQR is 20. If $Q_1 = 50$, what is Q_3 ?

A. 40

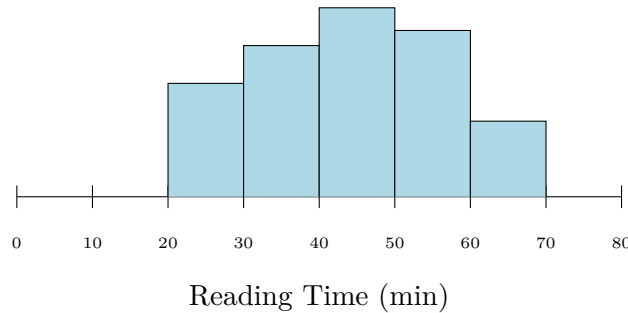
C. 70

B. 60

D. 80



- 5) A histogram shows students' reading times (minutes). The distribution is left-skewed with mean = 42 and median = 48. What does this tell us about the data?



- A. A few students read for very long periods
 B. The range is very small
 C. Most students read at the same speed
 D. A few students read for very short periods
- 6) The probability that a randomly selected student in a class plays soccer is $\frac{2}{3}$. If there are 24 students in the class, how many play soccer?
- A. 8
 B. 12
 C. 16
 D. 18
- 7) A science class recorded the heights of 50 plants in cm: 8, 12, 15, 18, 20, 21, 22, 23, 25, 26, 28, 30, 31, 33, 35, 38, 40, 42, 44, 46, 48, 50, 52, 54, 55, 57, 59, 61, 62, 64, 65, 67, 68, 70, 72, 74, 75, 77, 78, 80, 82, 84, 85, 87, 88, 90, 92, 94, 95, 98.
- Which display would be BEST for showing the spread and frequency of plant heights?

- A. Bar graph showing each height
 B. Pictograph with plant symbols
 C. Circle graph dividing by plant type
 D. Histogram with intervals of 10 cm



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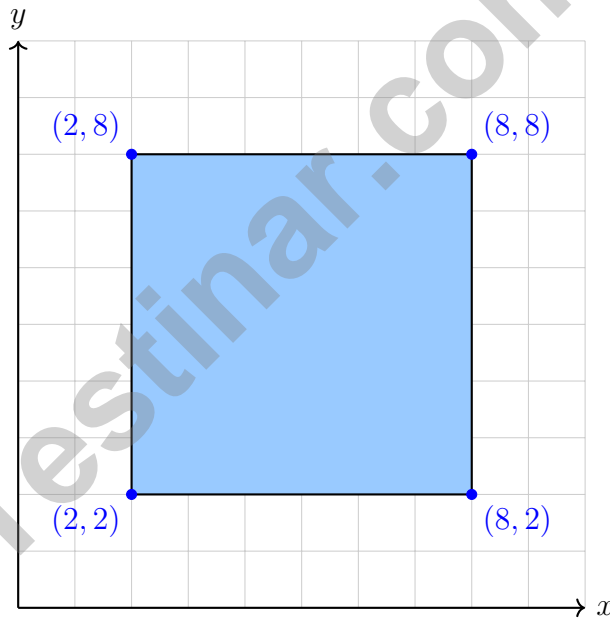
8) The table shows a constant rate. What is the rate per unit?

Hours	3	6	9
Cost (\$)	45	90	135

- A. \$12 per hour
- B. \$25 per hour
- C. \$20 per hour
- D. \$15 per hour

9) A rectangular prism has a base with length 7 in and width 4 in. Its height is 5 in. Find the volume using $V = Bh$.

- A. 140 in^3
- B. 99 in^3
- C. 58 in^3
- D. 280 in^3



10)

What is the area of this square?

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

- 1) A triangular prism has an equilateral triangular base with side length 6 cm. Each rectangle connecting the triangles has dimensions 6 cm \times 8 cm. What is the total surface area? (Equilateral triangle area: $\frac{\sqrt{3}}{4} \times 6^2 \approx 15.59 \text{ cm}^2$, or use 15.6 cm^2 .)
- A. 31.2 cm^2 C. 175.2 cm^2
 B. 144 cm^2 D. 190 cm^2
- 2) A mountain peak is at an elevation of 3500 feet above sea level. A valley floor is at an elevation of -800 feet. What is the difference in elevation?
- A. 2700 feet C. 3500 feet
 B. 4300 feet D. 800 feet
- 3) What is $\frac{2}{3} \div \frac{4}{5}$?
- A. $\frac{8}{15}$ C. $\frac{6}{7}$
 B. $\frac{5}{6}$ D. $\frac{10}{15}$
- 4) What is $5,832 \div 27$?
- A. 216 C. 220
 B. 210 D. 225
- 5) Rewrite $3(4 + 5) + 2(4 + 5)$ by **factoring out** $(4 + 5)$ as one product (one pair of grouped factors multiplying).
- A. $(3 + 2)(4 + 5)$ C. $5(14)$
 B. $3 \cdot 4 + 3 \cdot 5 + 2 \cdot 4 + 2 \cdot 5$ D. $(3 \times 4) + (2 \times 5)$



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6) Which fraction is equivalent to -0.5 on a number line?

A. $-\frac{1}{4}$

B. $-\frac{3}{4}$

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

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

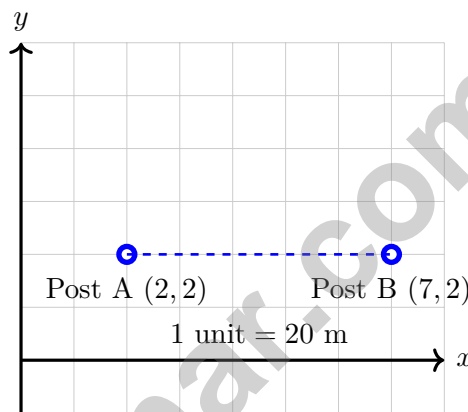
7) Which point would be closest to the origin?

A. $(-5, 7)$

B. $(3, -2)$

C. $(-8, 6)$

D. $(0, -4)$



8)

Two fence posts are located at $(2, 2)$ and $(7, 2)$ on a map. If each unit equals 20 meters, what is the actual distance between the posts?

A. 80 m

B. 140 m

C. 120 m

D. 100 m

9) A restaurant offers a choice of 3 soups, 4 main dishes, and 2 desserts. How many different meal combinations are possible if you choose one item from each category?

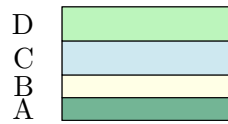
A. 9

B. 12

C. 24

D. 36





1)

0% 25% 50% 75% 100%

This 100% stacked bar graph shows the composition of four categories (A, B, C, D). Which category takes up the largest proportion?

- A. A C. C
 B. B D. D

2) A grocery store sells 8 pounds of rice for \$12. What is the unit price in dollars per pound?

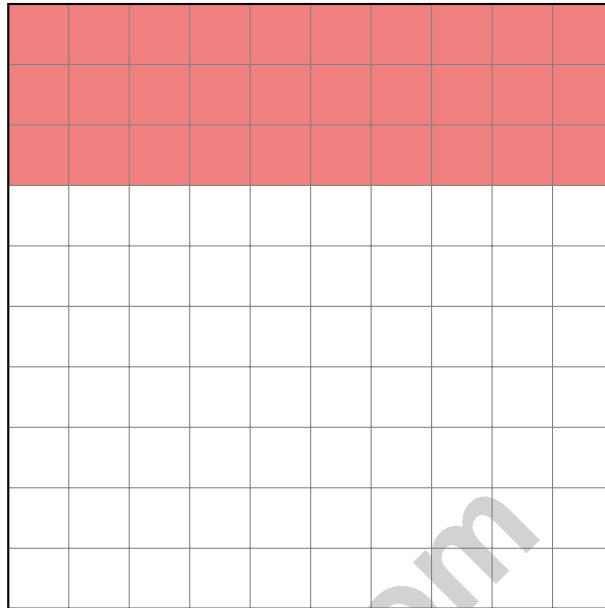
- A. \$1.50 per pound C. \$2.00 per pound
 B. \$1.25 per pound D. \$3.00 per pound

3) A catering company charges a constant fee per person. The graph shows points (6, 72) and (10, 120) on the line representing the cost-per-person ratio.

What is the cost per person?

- A. \$8 per person C. \$12 per person
 B. \$10 per person D. \$15 per person





4)

The grid shows what percent unshaded?

 A. 30% B. 70% C. 50% D. 20%5) The temperature is no more than 32°F . What is the greatest allowed temperature?6) What is $\frac{4}{5} \div \frac{2}{3}$? A. $\frac{8}{15}$ B. $\frac{2}{15}$ C. $\frac{10}{12}$ D. $\frac{6}{5}$ 

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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.



Maryland Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.SP.B.4)** $|-1.2| = 1.2$ and $|1.3| = 1.3$ are not equal, so they are not equidistant from zero.
- 2) **The correct answer is 14.** **(6.SP.B.4)** Distance is calculated as $7 - (-7) = 7 + 7 = 14$ units. Absolute value gives the magnitude: $|7 - (-7)| = 14$.
- 3) **Choice D is correct.** **(6.SP.A.3)** By definition, $IQR = Q_3 - Q_1$ represents the spread of the middle 50% of the data. Option D correctly interprets this. The range is not smaller than the IQR.
- 4) **Choice C is correct.** **(6.RP.A.1)** $IQR = Q_3 - Q_1$, so $20 = Q_3 - 50$. Thus $Q_3 = 70$.
- 5) **Choice D is correct.** **(6.SP.B.5)** Left-skewed means the tail points left (low values). Mean (42) < median (48) indicates low-value outliers pulling the mean down. These outliers are students with very short reading times.
- 6) **Choice C is correct.** **(6.NS.B.3)** Number of soccer players = $\frac{2}{3} \times 24 = 16$.
- 7) **Choice D is correct.** **(6.RP.A.3)** With 50 continuous numerical values, a histogram groups them into intervals (e.g., 0–10, 11–20, etc.) to show the distribution pattern. A bar graph for each individual height would be too crowded; circle and pictographs don't display numerical distributions.
- 8) **Choice D is correct.** **(6.RP.A.3)** Unit rate: $45 \div 3 = 15$ dollars per hour. Verify: $90 \div 6 = 15$ and $135 \div 9 = 15$.
- 9) **Choice A is correct.** **(6.G.A.2)** Base area: $B = 7 \times 4 = 28 \text{ in}^2$. Volume: $V = 28 \times 5 = 140 \text{ in}^3$.
- 10) **Choice C is correct.** **(6.G.A.3)** Side length = $8 - 2 = 6$ units. Area = $6 \times 6 = 36$ square units.
- 11) **Choice D is correct.** **(6.NS.C.8)** From $x = 2$ to $x = -3$ is a change of -5 , meaning 5 units to the left.
- 12) **Choice C is correct.** **(6.SP.B.4)** The value 5 appears 4 times, which is more than any other value, making it the mode.
- 13) **Choice B is correct.** **(6.SP.B.4)** Class A leaves (reading right-to-left) are 2, 5, 7, giving values 82, 85, 87. The smallest is 82.
- 14) **Choice D is correct.** **(6.EE.A.3)** "The product of 2 and a " is $2a$. "12 less than $2a$ " means subtract 12 from $2a$: $2a - 12$.
- 15) **Choice D is correct.** **(6.EE.A.3)** Substitute: $-5 + 3 - (-2) = -5 + 3 + 2 = 0$.
- 16) **Choice D is correct.** **(6.EE.B.5)** Two blocks of 8 grams balance x . So $x = 8 + 8 = 16$. Also written as $x = 2 \times 8 = 16$.
- 17) **Choice C is correct.** **(6.EE.B.8)** "No more than" means the weight limit is at most 5,000 pounds: $w \leq 5,000$.
- 18) **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 $x > 5$.
- 19) **Choice C is correct.** **(6.G.A.1)** Width: $7 - 1 = 6$ units. Height: $7 - 1 = 6$ units. Area = $6 \times 6 = 36$ square units.
- 20) **Choice D is correct.** **(6.RP.A.3)** If $\frac{3}{5}$ of the students play soccer, then $\frac{2}{5}$ do not play soccer. The ratio compares soccer players to non-soccer players, so the ratio is 3 : 2.
- 21) **Choice C is correct.** **(6.RP.A.1)** Divide distance by gallons: $225 \div 9 = 25$ miles per gallon.
- 22) **The correct answer is Zero serves as a reference point by marking the origin. Negative numbers are to the left (A is correct). Opposites are equidistant from zero (C is correct). Distance from zero determines position relative to the reference point (E is correct).** **(6.NS.C.5)** Choice A correctly identifies the spatial arrangement with zero as origin. Choice C correctly describes opposites as equidistant from zero (the reference). Choice E correctly explains how distances from zero locate a number. Choice B is about comparison, not zero's role as reference. Choice D is about direction but doesn't specifically explain zero's reference-point function.
- 23) **The correct answer is -8.** **(6.NS.C.7)** On a number line, -8 is less than -3 .
- 24) **Choice A is correct.** **(6.RP.A.2)** The correct unit price is $\$4.80 \div 8 = \0.60 per apple. The shopper stated the total cost as if it were per item, skipping the division step.
- 25) **Choice D is correct.** **(6.RP.A.3)** Both points have the same unit rate (constant of proportionality): $\frac{2.74}{3} \approx 0.913$ meters per yard and $\frac{5.48}{6} \approx 0.913$ meters per yard. The points are collinear and proportional.
- 26) **Choice C is correct.** **(6.RP.A.3)** $\frac{1}{5} = \frac{20}{100} = 20\%$, since $1 \times 20 = 20$ and $5 \times 20 = 100$.



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Ahoy, Math Sailor!

◇ You sailed through 7 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 7 practice tests. You will reach safe harbor!

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

Jay Daie

Your Math Captain

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