

# 4

COMPLETE

# Maryland MCAP

Grade **MATH**

# PRACTICE TESTS

# 5

Standards-Based Test Prep with  
Mixed Review, Word Problems,  
and **Full Answer Key**



- ✓ **4 COMPLETE PRACTICE TESTS**  
Built to reflect the test format  
and rigor



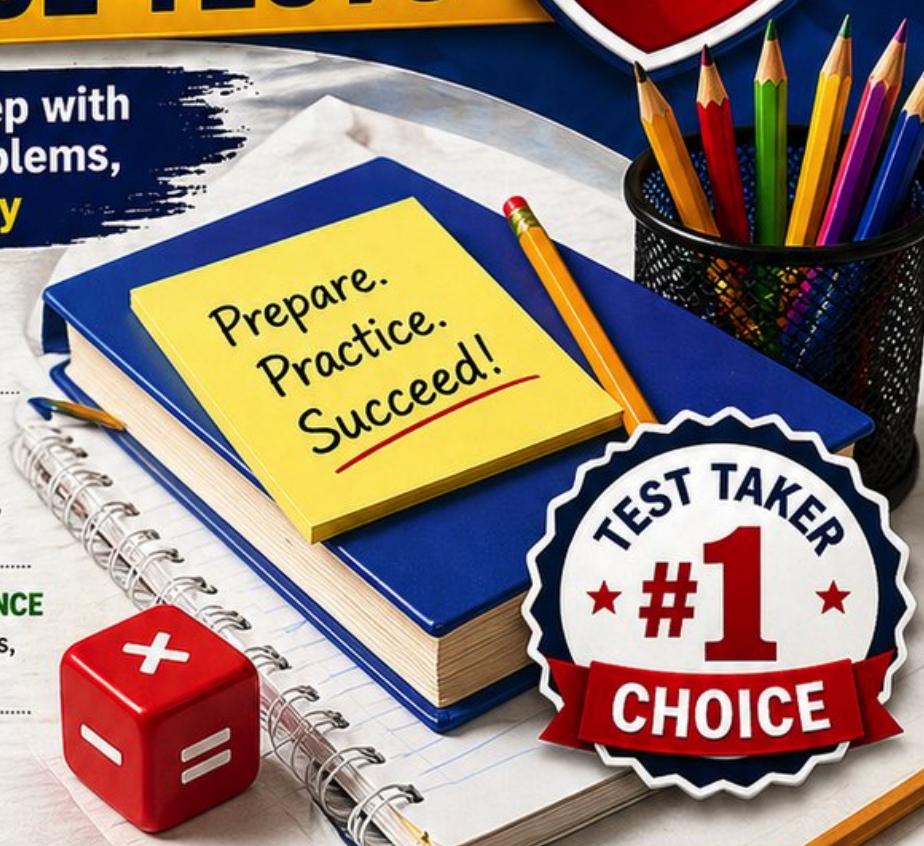
- ✓ **COVERS ALL ESSENTIAL TOPICS**  
Numbers & Operations, Fractions,  
Decimals, Geometry, Measurement,  
Data & Probability, and more



- ✓ **STRENGTHEN SKILLS & CONFIDENCE**  
Mixed review, challenging questions,  
and strategic practice



- ✓ **FULL ANSWER KEY INCLUDED**  
Detailed explanations for  
every question



TEST TAKER  
★ #1 ★  
CHOICE



BUILD STRONG  
MATH SKILLS  
& TEST READINESS



IMPROVE ACCURACY,  
SPEED, AND  
PROBLEM SOLVING



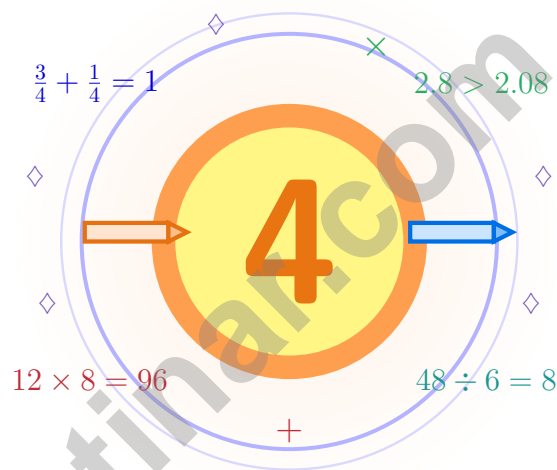
PERFECT FOR  
CLASSROOM,  
HOME, OR  
SELF-STUDY



ALIGNED TO  
MARYLAND  
STATE STANDARDS  
(MCAP)

# 4 Maryland MCAP Grade 5 Math Practice Tests

*Four practice tests woven into one calm, steady routine*



Four full tests, a smart quick review, mission-style strategy pages, and student-tested support that help Grade 5 mathematicians from The Old Line State build calm, careful, confident habits.

**Jay Daie and Reza Nazari**



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# Four Tests, One Strong Maryland Mathematician

A four-test mission for curious, careful Grade 5 thinkers

## Dear Maryland Math Mission Crew

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math is like the Chesapeake – wide, full of life, and best understood with a careful map and steady hands on the wheel.

You do not need to feel perfect before you begin. You just need to stay curious, use strategies, and learn from every correction. That is how confident mathematicians are built.

### See

See the whole problem  
before you start the  
math.

### Plan

Plan one careful step  
before the next.

### Reflect

Reflect after each  
problem to lock the  
lesson in.

**A strong mission habit for Maryland:** keep your work neat, estimate when it helps, label units carefully, and never let one hard question decide your mood for the whole page.

# Your Four-Step Game Plan

A four-step routine that turns practice into real improvement

## Step 1: Set Up

**Pencil ready, distractions gone.**

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

## Step 2: Work the Test

**Take a full test like the real day.**

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

## Step 3: Look Back

**Walk through your answers without rushing.**

Circle missed questions, sort out what went sideways, and notice which skills are calling for attention.

## Step 4: Climb Higher

**Pick one or two skills to sharpen next.**

Read the explanation, fix the work, and carry that lesson into the very next test.

## A Four-Week Maryland Mission Map

Week	Mission Focus
Week 1	Take Test 1 and chart your bay. The first reading sets the rest.
Week 2	Take Test 2 and lift word problems and clear writing.
Week 3	Take Test 3 to sharpen fractions, decimals, and measurement work.
Week 4	Take Test 4 with calm captain-style focus and careful final checks.



Scan me

## Four-Test Walkthrough

What these four practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Old Line State for the Maryland MCAP with the steady focus of a Bay sailor. The goal is bigger than collecting right answers. Students are practicing how to read carefully, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every day.

### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, crossing out weak choices, and checking for reasonableness can save time and points.

### Constructed-Response Questions

Students show steps, explain a method, or support an answer with clear math. Strong reasoning matters because it shows how the answer was found.

### Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- tables, line plots, patterns, and coordinate points
- geometry and multi-step real-world problem solving

**What strong MCAP-style work looks like:** accurate math, readable steps, the right labels or units, and a final answer that really matches the question being asked.



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## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

Perimeter of Rectangle  $P = 2l + 2w$  or  $P = 2(l + w)$

Area of Rectangle  $A = l \times w$

Area of Triangle  $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism  $V = l \times w \times h$

### LENGTH

#### Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

#### Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

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### CAPACITY

#### Customary

1 cup (c) = 8 fluid ounces (fl oz)

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### TIME

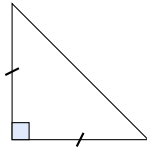
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- 1) Which name describes a triangle with two equal sides and one right angle?



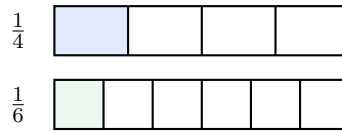
- A. Isosceles acute
- B. Right isosceles
- C. Scalene obtuse
- D. Equilateral
- 2) Which comparison is correct?
- A.  $1\frac{1}{2} \times 2 < 3$
- B.  $1\frac{1}{3} \times 3 = 3\frac{1}{3}$
- C.  $3\frac{1}{3} \times 2 > 6\frac{1}{2}$
- D.  $2\frac{1}{4} \times 2 = 4$
- 3) A bank account has a balance of \$324.75. Deposits of \$150.25 and \$75.50 are made. What is the new balance?

Transaction	Amount
Starting Balance	\$324.75
Deposit 1	\$150.25
Deposit 2	\$75.50
New Balance	?

- A. \$500.00
- B. \$500.50
- C. \$550.50
- D. \$549.50
- 4) If you know the volume is  $336 \text{ cm}^3$  and two dimensions are 12 cm and 7 cm, what is the third dimension?
- A. 3 cm
- B. 6 cm
- C. 5 cm
- D. 4 cm



5) The models show  $\frac{1}{4}$  and  $\frac{1}{6}$ . What is the sum?

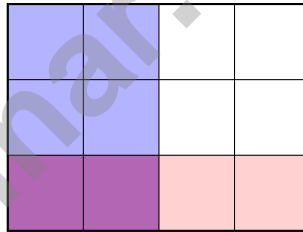


- A.  $\frac{2}{10}$ 
 C.  $\frac{5}{12}$   
 B.  $\frac{1}{4}$ 
 D.  $\frac{2}{24}$

6) Pattern: 8, 16, 24, 32, ... vs. Pattern: 8, 16, 32, 64, ... Which statement is true?

- A. Both patterns have the same 5th term  
 B. The first pattern adds 8 each time; the second multiplies by 2  
 C. Both are doubling patterns  
 D. The second pattern adds 8 each time

7) Which calculation is shown in the area model below?



- A.  $\frac{1}{2} \times \frac{2}{3}$ 
 C.  $\frac{1}{4} \times \frac{1}{3}$   
 B.  $\frac{2}{4} \times \frac{1}{3}$ 
 D.  $\frac{2}{3} \times \frac{3}{4}$

8) A composite art display is made from two non-overlapping rectangular prisms. Prism A is 5 meters long, 4 meters wide, and 4 meters tall. Prism B is 6 meters long, 2 meters wide, and 4 meters tall. What is the total volume?

- A. 80 cubic meters
  C. 148 cubic meters  
 B. 48 cubic meters
  D. 128 cubic meters



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1) What is  $0.45 \times 10$ ?

- A. 0.045                       C. 4.5  
 B. 45                               D. 450

2) Compare: Which is greater,  $\frac{5}{6}$  or  $\frac{3}{4}$ ? By how much?

- A.  $\frac{5}{6}$  by  $\frac{1}{12}$                        C. Equal  
 B.  $\frac{3}{4}$  by  $\frac{1}{12}$                        D.  $\frac{5}{6}$  by  $\frac{1}{2}$

3) A bookshelf has  $\frac{4}{9}$  of its space used for fiction and  $\frac{2}{9}$  for non-fiction. What fraction is used?

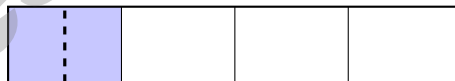
- A.  $\frac{2}{9}$                                    C.  $\frac{6}{9}$   
 B.  $\frac{4}{9}$                                    D.  $\frac{8}{9}$

4) Which expression equals 0?

- A.  $(10 - 4) \div 6 - 1$                        C.  $10 - (4 \times 2)$   
 B.  $10 - 4 \div 2$                                D.  $10 \times (4 - 4) + 1$

5) The model shows  $\frac{1}{4}$  of a whole split into 2 equal parts. What fraction of the whole is each small part?

$\frac{1}{4}$  split into 2



1 whole split into 4 equal parts

- A.  $\frac{1}{4}$                                    C.  $\frac{1}{8}$   
 B.  $\frac{1}{2}$                                    D.  $\frac{1}{6}$



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1) How many zeros are in the product  $30 \times 30$ ?

A. 1

B. 2

C. 3

D. 4

2) Compare:  $7 \times (40 - 10)$    $7 \times 40 - 7 \times 10$

A. >

B. <

C. =

D. Cannot tell

3) Two boxes are compared. Box A is 8 feet by 4 feet by 3 feet. Box B is 7 feet by 5 feet by 3 feet. By how much is Box B's volume greater than Box A's volume?

*Record your answer in the space provided.*

4) One fourth liter of paint is poured equally into 5 cups. Which division equation finds each share?

A.  $5 \div \frac{1}{4} = n$

B.  $\frac{1}{4} \times 5 = n$

C.  $5 + \frac{1}{4} = n$

D.  $\frac{1}{4} \div 5 = n$

5) Estimate:  $14\frac{1}{7} - 8\frac{4}{5}$ .

A. About 5

B. About 6

C. About 7

D. About 8



## Practice Test Answer Keys

### How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

**Good correction habits build strong scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice B is correct.** (5.G.B.4) The diagram shows a right angle (small square) and two equal sides (tick marks), making it a right isosceles triangle.
- Choice C is correct.** (5.NF.B.6) A is false because  $1\frac{1}{2} \times 2 = 3$ . B is false because  $1\frac{1}{3} \times 3 = 4$ . C is true because  $3\frac{1}{3} \times 2 = 6\frac{2}{3}$ , which is greater than  $6\frac{1}{2}$ . D is false because  $2\frac{1}{4} \times 2 = 4\frac{1}{2}$ .
- Choice C is correct.** (5.MD.C.5) Add:  $324.75 + 150.25 + 75.50 = 550.50$  dollars.
- Choice D is correct.** (5.NF.B.7) Product of two dimensions:  $12 \times 7 = 84 \text{ cm}^2$ . Third dimension:  $336 \div 84 = 4 \text{ cm}$ .
- Choice C is correct.** (5.NF.A.1) The first bar model shows  $\frac{1}{4}$  and the second bar model shows  $\frac{1}{6}$ .  $\text{LCM}(4,6) = 12$ .  $\frac{1}{4} = \frac{3}{12}$  and  $\frac{1}{6} = \frac{2}{12}$ .  $\frac{3}{12} + \frac{2}{12} = \frac{5}{12}$ .
- Choice B is correct.** (5.OA.B.3) The first pattern adds 8 each time. The second pattern multiplies by 2 each time, so it follows a different rule.
- Choice B is correct.** (5.MD.C.5) The blue region is 2 out of 4 columns. The red region is 1 out of 3 rows. The overlap shows  $\frac{2}{4} \times \frac{1}{3} = \frac{2}{12}$ .
- Choice D is correct.** (5.MD.C.3) Find each part first: Prism A is  $5 \times 4 \times 4 = 80$  cubic meters, and Prism B is  $6 \times 2 \times 4 = 48$  cubic meters. Because the parts do not overlap, add them:  $80 + 48 = 128$  cubic meters.
- Choice A is correct.** (5.OA.B.3) Each term in Right is 9 times the corresponding term in Left:  $1 \times 9 = 9$ ,  $2 \times 9 = 18$ ,  $3 \times 9 = 27$ ,  $4 \times 9 = 36$ ,  $5 \times 9 = 45$ .
- Choice A is correct.** (5.NBT.A.3) 38 out of 100 squares shaded represents  $\frac{38}{100} = 0.38$ .
- The correct answer is  $\frac{1}{2}$ .** (5.NF.A.2)  $\frac{1}{3} = \frac{2}{6}$ . Remaining:  $\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$ .
- Choice D is correct.** (5.OA.A.2) Area of a rectangle is length times width. Here the length is  $(4 + 3)$  and the width is 5, so the area expression is  $(4 + 3) \times 5$ .
- Choice D is correct.** (5.NF.B.4)  $\frac{7}{8} \times 2 = \frac{14}{8} = 1\frac{6}{8} = 1\frac{3}{4}$  (simplified).
- Choice C is correct.** (5.G.A.1) A rectangle has four right angles. The fourth corner shares the x-coordinate of one corner and the y-coordinate of another: (1, 4).
- Choice A is correct.** (5.NBT.B.7) Line up decimal points and subtract place by place.  $72.45 - 58.13 = 14.32$  degrees Fahrenheit. This confirms the answer.
- The correct answer is 21.** (5.OA.A.1) First simplify the parentheses:  $6 + 2 = 8$ . Then  $48 \div 8 = 6$  and  $5 \times 3 = 15$ , so the total is  $6 + 15 = 21$ .
- Choice D is correct.** (5.NBT.A.2) A is false:  $0.13 \times 100 = 13 < 130 = 0.13 \times 1000$ . B is true:  $13 = 13$ . C is false:  $0.13 \times 10 = 1.3 = 1.3$  (equal, not greater). D is false:  $0.013 \times 100 = 1.3 = 1.3$  (equal).
- Choice C is correct.** (5.NF.B.5)  $\frac{6}{6} = 1 > \frac{1}{2}$ , so  $18 \times 1 > 18 \times \frac{1}{2}$ .
- Choices A, B are correct.** (5.NBT.A.2)  $4.7 \div 10$  and  $47 \div 100$  both equal 0.47. C and D each give 0.047.
- Choice C is correct.** (5.NF.B.7) Think of half-gallon groups. Each gallon fills 2 bottles, so  $3 \div \frac{1}{2} = 3 \times 2 = 6$  bottles.
- The correct answer is  $\frac{3}{5}$ .** (5.NF.A.2) Divide both by 5:  $\frac{15 \div 5}{25 \div 5} = \frac{3}{5}$ .
- Choice D is correct.** (5.G.B.4) This parallelogram has two pairs of parallel sides, but it does not have all right angles like a rectangle and does not have all sides equal like a rhombus.
- Choice B is correct.** (5.NF.A.1) Borrow 1 from 4 to rewrite  $4\frac{1}{8}$  as  $3\frac{9}{8}$ . Then  $3\frac{9}{8} - 2\frac{7}{8} = 1\frac{2}{8}$ , which simplifies to  $1\frac{1}{4}$ .
- Choice D is correct.** (5.G.A.2) The top-right vertex has the greatest x-coordinate and the greatest y-coordinate among the rectangle's vertices, so it is (7, 4).
- Choice A is correct.** (5.NF.B.7)  $\frac{1}{5} \div 3 = \frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$ .
- Choice C is correct.** (5.NF.B.6)  $\frac{1}{3} \times \frac{4}{7} = \frac{4}{21}$  (multiply numerators and denominators).
- The correct answer is  $\frac{1}{4}$ .** (5.NF.A.2)  $\frac{2}{3} = \frac{8}{12}$ . Difference:  $\frac{3}{12} = \frac{1}{4}$ .
- Choice A is correct.** (5.MD.C.3)  $1 \times 8 \times 4 = 32$  cu. units. Choice B:  $1 \times 4 \times 7 = 28$ . Choice C:  $3 \times 4 \times 3 = 36$ . Choice D:  $2 \times 3 \times 5 = 30$ .



### Captain's Log—Voyage Complete

#### First Mate, Well Done!

◇ You sailed through 4 practice tests with steady hands and a sharp eye. The waters got rough sometimes, but you kept your course. That's what good sailors do. Now the harbor (test day) is in sight, and you are ready to dock with confidence. ◇

★ **Captain's wisdom:** a good sailor doesn't fight the wind—they read it and adjust. On a test, the same thing is true. When a problem feels tricky, don't panic. Read it again. Try a new strategy. Adjust the sails of your thinking. ★

#### Captain's Skills Inventory

- **Steady Steering:** EXCELLENT! You stay on course even when problems get tough.
- **Wind Reading:** STRONG! You can spot what a problem is really asking.
- **Crew Spirit:** HIGH! You believe in your own ability.
- **Harbor Approach:** READY! You know how to finish a test calmly.

**Final captain's note:** the best voyages combine planning with courage. You have both. Trust the chart you built through these 4 tests. Trust your hands on the wheel. Then sail confidently into test day.

If you'd like to share your experience or have questions, please email me at [reza@testinar.com](mailto:reza@testinar.com). I'd love to hear from you!

**Reza Nazari & Jay Daie**

Your Math Captain (Smooth Sailing Ahead)

# 4 COMPLETE TESTS. CONFIDENCE. SUCCESS.



Give your child the practice and confidence they need to excel in **Grade 5 Math**. This book includes **4 full-length** practice tests designed to build skills, improve test readiness, and help students reach their full potential.

## WHAT'S INSIDE:



### 4 COMPLETE PRACTICE TESTS

Full-length tests that reflect real test format and rigor.



### COVERS ALL GRADE 5 TOPICS

Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more.



### MIXED REVIEW & WORD PROBLEMS

Build problem-solving skills with mixed review questions and real-world word problems.



### DETAILED ANSWER KEY

Step-by-step explanations for every question to help students learn and improve.



### BUILD CONFIDENCE & IMPROVE SCORES

Practice consistently, reduce test anxiety, and achieve your best score!



**PRACTICE SMART. LEARN MORE. ACHIEVE YOUR BEST.**



**Strengthen**  
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**Improve**  
Accuracy  
& Speed



**Master**  
Essential  
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**Boost**  
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