

# 7

# Maryland

# MCAP

## Grade 3 MATH

## PRACTICE TESTS

Standards-Aligned Practice with  
Review, Answer Keys, and Explanations



7 Full-Length  
Practice Tests



Standards-Aligned  
Math Practice



Detailed Answer Keys  
and Explanations



Build Confidence.  
Achieve Success.

PREPARE  
PRACTICE  
SUCCEED



$4 \times 6 = 24$



# 7 Maryland MCAP Grade 3 Math Practice Tests

*Standards-Aligned Practice with Review, Answer Keys, and Explanations*



Seven complete 30-question practice trails for Grade 3 math:  
operations, fractions, measurement, data, area, shapes, answer keys,  
and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome to the Seven Math Trails

Seven full tests, seven fresh chances, and one braver Grade 3 thinker



Read the trail. Mark the clues. Solve with care.

## To the Grade 3 Math Trail Leader

This book gives you seven complete practice trails for the Maryland MCAP. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

Maryland has bay bridges, harbor maps, crab boats, rolling fields, and strong classroom questions, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and check units and labels before the final answer.

### Scout

Find what the problem is asking before you calculate.

### Solve

Pick an equation, model, array, graph, or number line.

### Prove

Check the answer and explain the thinking clearly.

**Seven-trail promise:** I will work with patience, use my scratch space wisely, and let every correction make my next test stronger.

# How to Use This Book

## A seven-trail routine for steady Grade 3 growth

Use one practice trail at a time. The goal is not to rush through more pages. The goal is to finish, check, repair, and bring a stronger habit to the next test. For Maryland students, each trail moves through bay bridges, harbor maps, crab boats, rolling fields, and strong classroom questions: steady, alert, and ready for the next clue.

1. **Preview the tools.** Skim the reference page before each test.
2. **Take one test.** Work steadily and mark problems that need another look.
3. **Check the key.** Use the compact answer boxes first.
4. **Study explanations.** Read missed items and lucky guesses.
5. **Redo three problems.** Rewrite the work cleanly without copying.
6. **Name one habit.** Choose a focus such as labels, facts, fractions, or checking.
7. **Start the next trail.** Bring that habit into the next full test.

**Best review habit:** A missed problem is a trail marker. It shows where to slow down, look again, and choose a better step.



## What Is Inside?

Seven complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–7	Solve seven different 30-question tests.	Build stamina and see Grade 3 skills mixed together.
Reference Materials	Review measurement and time facts before each test.	Keep common tools close without turning pages backward.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read why each answer works.	Turn missed items into a clear next step.
Standards Reference	See how Maryland Grade 3 standards connect to practice.	Understand the skills behind the questions.

Each test has 26 multiple-choice questions, 1 select-all question, and 3 open-ended questions. This gives students practice with quick decisions, careful reading, and short written math answers for the Maryland MCAP path.

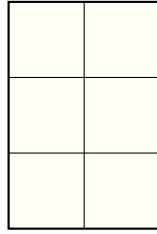


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& answers

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Each square is 1 ft × 1 ft



1)

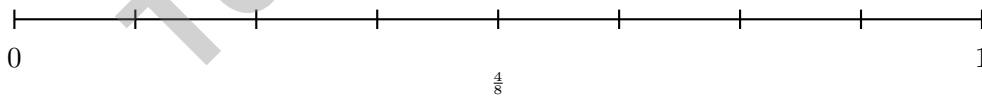
The grid shows a shape made of unit squares measured in feet. How many unit squares fit in this shape?

- A. 3 unit squares                       C. 6 unit squares  
 B. 5 unit squares                       D. 8 unit squares

2) A teacher says: “If a number rounds to 500 when rounded to the nearest 100, it must be at least 450. Is the teacher correct? Why or why not?”

- A. Yes, the teacher is correct                       C. No, numbers as low as 400 can round to 500  
 B. No, numbers from 450 to 549 round to 500                       D. No, the rule only works for even numbers

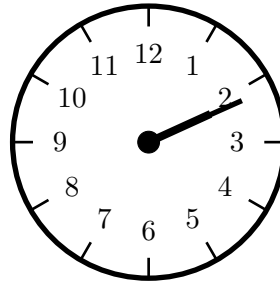
3) On a number line from 0 to 1 divided into 8 equal parts, which two fractions name the same point?



- A.  $\frac{1}{2}$  and  $\frac{4}{8}$                        C.  $\frac{3}{8}$  and  $\frac{5}{8}$   
 B.  $\frac{2}{8}$  and  $\frac{3}{8}$                        D.  $\frac{2}{4}$  and  $\frac{6}{8}$



4) What time is shown on the clock below?



A. 2 : 11

C. 11 : 02

B. 2 : 35

D. 11 : 10

5) What whole number is  $\frac{6}{6}$ ?

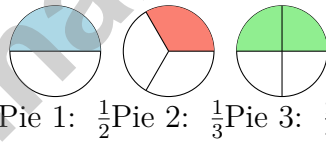
A. 6

C. 1

B. 0

D. 3

6) Which two pie charts show equivalent fractions?



A. Pies 1 and 2

C. Pies 2 and 3

B. Pies 1 and 3

D. All three pies

7) A rectangular field is 6 meters long and 8 meters wide. How many square meters is the field?

A. 14 sq m

C. 42 sq m

B. 28 sq m

D. 48 sq m



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8) Marcus has 15 toy cars and his friend gives him 9 more. They divide all the cars equally among 3 children. Let  $m$  be the number of cars each child gets. Which equation is correct?

A.  $m = (15 + 9) \div 3$

C.  $m = (15 + 9) - 3$

B.  $m = 15 + 9 \div 3$

D.  $m = 15 \times 9 \div 3$

9) Ana says  $15 \div 3 = 4$ . Is she right? Explain.

 A. Yes, she is right. C. No, the answer is 12. B. No, the answer is 18. D. No, the answer is 5.

10) Which fraction bar pair shows equivalent fractions (same shaded region size)?

Option 1:  $\frac{2}{4}$  

Option 2:  $\frac{1}{2}$  

 A. The bars are not the same length. C. No, Option 1 is larger. B. No, Option 2 is larger. D. Yes, they are equivalent.

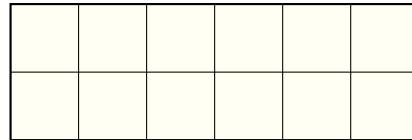
11) A rectangular bookmark has length 9 cm and width 2 cm. Find the area of the bookmark.



1) Noah reads  $\frac{4}{8}$  of a book. What is equivalent?

- A.  $\frac{1}{3}$
- B.  $\frac{1}{2}$

- C.  $\frac{3}{4}$
- D.  $\frac{2}{3}$



2)

How many unit squares are in this rectangle?



Circle

Rectangle

3)

Which shapes shown have vertices (corners)?

- A. Only the circle
- B. Only the rectangle
- C. Both shapes
- D. Neither shape

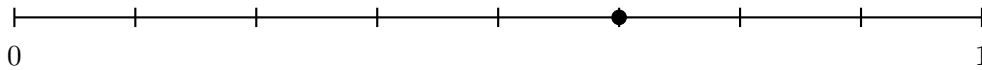
4) Mia computed  $456 + 237$  and got 693. Is her answer reasonable? Explain by rounding to the nearest hundred.

- A. Yes;  $500 + 200 = 700$ , which is close to 693
- B. No;  $500 + 200 = 700$ , but she wrote 693
- C. Yes; the exact answer is 693
- D. No;  $400 + 300 = 700$ , but she wrote 693



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5) On a number line from 0 to 1 with 8 equal parts, what fraction is marked by the dot?



A.  $\frac{3}{8}$   
 B.  $\frac{4}{8}$

C.  $\frac{5}{8}$   
 D.  $\frac{6}{8}$

6) Which split could show  $6 \times (4 + 3) = (6 \times 4) + (6 \times 3)$ ?

- A. Two rectangles share a 6-unit side; the other sides are 4 and 3  
 B. Two rectangles have no matching side lengths  
 C. One rectangle is not split into parts  
 D. One rectangle is split into three unrelated parts

7) A door is 9 decimeters tall and 4 decimeters wide. What is the area of the door?

- A. 13 sq dm  
 B. 26 sq dm  
 C. 36 sq dm  
 D. 40 sq dm

8) A classroom is shaped like an L. One part is 8 units by 3 units. The other part is 5 units by 2 units. What is the total area of the classroom?



1) A number line from 0 to 1 is divided into 6 equal parts. Which point is at  $\frac{4}{6}$ ?

A. The 2nd tick

C. The 4th tick

B. The 3rd tick

D. The 6th tick

2) What is  $28 \div 4$ ?

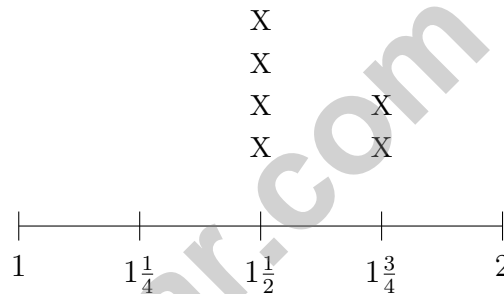
A. 6

C. 8

B. 7

D. 4

3) Mia's line plot shows snack weights in ounces:  $1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2$ .



What is the difference between the largest and smallest numbers of X's?

A. 1

C. 3

B. 2

D. 4

4) Two identical sandwiches are served. Sandwich A is cut into 4 pieces with 1 eaten. Sandwich B is cut into 8 pieces with 2 eaten. How much is left uneaten?

A. Same amount is left.

C. Sandwich B has more left.

B. Sandwich A has more left.

D. Cannot tell.



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5) Eli multiplies:  $2 \times 4 = 8$ ,  $2 \times 6 = 12$ ,  $2 \times 8 = 16$ .

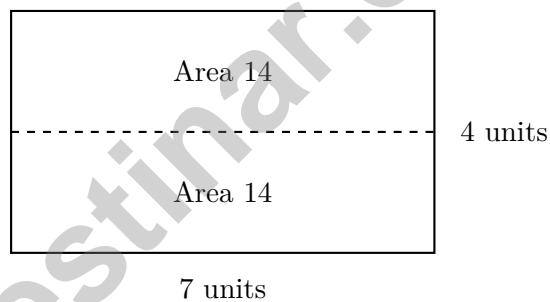
Why is every product an even number?

- A. Because 2 is an even number
- B. Because we add the numbers together
- C. Because all products are less than 20
- D. Because we are always multiplying by 2, and multiplying by an even number always gives an even product

6) Two different rectangles both have areas of 16 square units. Which pair of dimensions is NOT possible?

- A.  $4 \times 4$
- B.  $2 \times 8$
- C.  $3 \times 5$
- D.  $1 \times 16$

7) A rectangle has this tiling:



Which sum of the two smaller areas gives the total area?

- A.  $7 \times 2 = 14$
- B.  $7 \times 3 = 21$
- C.  $14 + 14 = 28$
- D.  $7 + 4 = 11$



## Practice Test Answer Keys

**How to use this section with a Grade 3 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 C is correct.** **(3.MD.C.6)** The rectangle is 2 feet wide and 3 feet tall:  $2 \times 3 = 6$  unit squares.
- 2) **Choice A is correct.** **(3.NBT.A.1)** Numbers from 450 to 549 round to 500 when rounded to the nearest 100. So yes, any number that rounds to 500 must be at least 450.
- 3) **Choice A is correct.** **(3.NF.A.2)** Both  $\frac{1}{2}$  and  $\frac{4}{8}$  represent the point halfway from 0 to 1 on a number line.
- 4) **Choice A is correct.** **(3.MD.A.1)** The minute hand points to 11 minutes (just past the 2), and the hour hand is just past 2. The time is 2 : 11.
- 5) **Choice C is correct.** **(3.G.A.2)** A fraction where numerator = denominator always equals 1.  $\frac{6}{6} = 1$ .
- 6) **Choice B is correct.** **(3.NF.A.3)** Pie 1 shows  $\frac{1}{2}$  (half shaded) and Pie 3 shows  $\frac{2}{4}$  (half shaded). Both represent the same amount:  $\frac{1 \times 2}{2 \times 2} = \frac{2}{4}$ .
- 7) **Choice D is correct.** **(3.MD.C.6)** Area =  $6 \times 8 = 48$  square meters.
- 8) **Choice A is correct.** **(3.OA.D.8)** First add:  $15 + 9 = 24$  cars. Then divide by 3 children:  $24 \div 3 = 8$  cars per child. Choice A correctly shows both steps with parentheses.
- 9) **Choice D is correct.** **(3.OA.A.2)**  $15 \div 3 = 5$  because  $3 \times 5 = 15$ . There are 5 groups of 3 in 15, not 4.
- 10) **Choice D is correct.** **(3.NF.A.2)**  $\frac{2}{4} = \frac{1}{2}$  because both represent one-half of their respective bars.
- 11) **The correct answer is 18 sq cm.** **(3.MD.C.7)** Area =  $9 \times 2 = 18$  square centimeters. You can multiply the side lengths or imagine 9 rows of 2 unit squares.
- 12) **Choice B is correct.** **(3.MD.A.2)** Subtract:  $2000 - 250 = 1750$  g.
- 13) **Choice B is correct.** **(3.G.A.1)** A trapezoid is defined by having exactly one pair of parallel sides. This is what makes it different from a parallelogram.
- 14) **Choices A and C are correct.** **(3.MD.C.5)** A is correct: multiply to find the first rectangle's area. C is correct: add the areas of all rectangles to get the total. B demonstrates the computation but C shows the critical additive step. D is wrong (do not multiply all dimensions together). E is wrong (rectangles can be any size as long as they don't overlap; the additive principle still holds).
- 15) **Choice B is correct.** **(3.MD.B.4)** Both  $50\frac{1}{2}$  and 52 pages have only 1 X each, but  $50\frac{1}{2}$  is one of the least common. The next most common is 50 pages with 2 X's, and 51 pages appears most often with 4 X's.
- 16) **Choice A is correct.** **(3.NBT.A.2)** Ones:  $2 - 8$  requires regrouping, so  $12 - 8 = 4$ . Tens:  $9 - 1 = 8$  (after regrouping). Hundreds:  $8 - 4 = 4$ . Answer: 484.
- 17) **Choice D is correct.** **(3.OA.C.7)**  $42 \div 6 = 7$  because  $7 \times 6 = 42$ .
- 18) **Choice A is correct.** **(3.NF.A.3)** X is halfway between 0 and  $\frac{1}{3}$ , which is  $\frac{1}{6}$ . Y is between  $\frac{1}{3}$  and 1, at the  $\frac{1}{2}$  mark.
- 19) **Choice A is correct.** **(3.OA.A.4)** The fact family for 4, 9, and 36 has equations like  $4 \times 9 = 36$  and  $36 \div 9 = 4$ . The equation  $36 \div 6 = 6$  uses 6, not 4 or 9.
- 20) **Choice D is correct.** **(3.OA.B.5)** The associative property changes the grouping of the factors without changing their order. So  $(3 \times 4) \times 2 = 3 \times (4 \times 2) = 24$ .
- 21) **Choice D is correct.** **(3.OA.B.6)** Finding the missing factor:  $6 \times 8 = 48$ . This is the same as asking  $48 \div 8 = \square$ . We think: what times 8 makes 48? The answer is 6 because  $6 \times 8 = 48$ .
- 22) **Choice D is correct.** **(3.OA.A.1)** The array shows 6 columns and 2 rows. So  $6 \times 2 = 12$  or  $2 \times 6 = 12$ .
- 23) **Choice A is correct.** **(3.MD.D.8)**  $P = 2(10) + 2(4) = 20 + 8 = 28$  in.
- 24) **The correct answer is 0.** **(3.OA.D.9)** All numbers in this pattern are even because we're multiplying 4 (an even number) by 1, 2, 3, etc. Since 4 is even, every multiple of 4 is even. There are no odd numbers.
- 25) **Choice D is correct.** **(3.NBT.A.3)** The chart shows 9 tens and 0 ones, which represents  $9 \times 10 = 90$  coins.
- 26) **Choice A is correct.** **(3.NF.A.1)** Four internal tick marks create 5 equal parts total. The first tick is at the unit fraction  $\frac{1}{5}$ .
- 27) **Choice C is correct.** **(3.MD.C.5)** 6 wide and 2 tall:  $6 \times 2 = 12$  unit squares.
- 28) **Choice A is correct.** **(3.MD.C.7)** The distributive property is shown as  $8 \times (7 + 5) = (8 \times 7) + (8 \times 5) = 56 + 40 = 96$ .



## Hi, Strong Climber!

◇ You climbed all 7 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

### Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

**Guide's tip:** on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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 Trail Guide

# PRACTICE TODAY. MASTER TOMORROW.

This book is designed to help **Grade 3** students strengthen their math skills through focused practice and real progress.

- ✓ 7 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success
- ✓ Review, answer keys, and explanations



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Aligned  
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Types



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Math  
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Progress  
Tracking



Build Skills  
and Boost  
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- ✓ Algebraic Thinking
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- ✓ Number Patterns
- ✓ Word Problems
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