

# 7

# Maryland

# MCAP

## GRADE 5

# MATHEMATICS

## PRACTICE TESTS

✓  
PRACTICE  
PREPARE  
SUCCEED

★★★

Comprehensive Standards-Aligned  
Review for Strong Grade 5  
Math Performance



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

$$2.4 + 1.6 = 4.0$$

$$A = \frac{bh}{2}$$



**7 FULL-LENGTH  
PRACTICE TESTS**

Realistic style  
questions



**STANDARDS-  
ALIGNED**

Covers all Grade 5  
standards



**BUILD CONFIDENCE**

Target weak areas  
and improve  
performance



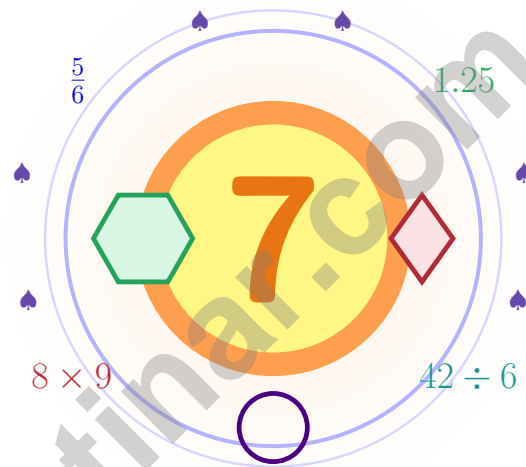
**ACHIEVE SUCCESS**

Develop skills,  
stay prepared,  
excel on test day

★ PRACTICE TODAY. PERFORM TOMORROW. **SUCCEED** FOREVER. ★

# 7 Maryland MCAP Grade 5 Math Practice Tests

*Seven practice tests woven into one calm routine*



Seven full tests, a concise review, and helpful support that turns  
Grade 5 practice in The Old Line State into steady, confident  
growth from page one to the final check.

**Jay Daie and Reza Nazari**



# Copyright ©

## Testinar Inc



Published by Testinar Inc

[Testinar.com](http://Testinar.com)

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



*Copyright ©*

# Maryland Grade 5: Practice Path Briefing

A seven-step adventure for Maryland Grade 5 thinkers

## Just for Maryland Grade 5 Trail Specialists

This practice book is your steady companion for seven tests, not a place to be perfect. Math is like the Chesapeake – wide, full of life, and best understood with a careful map and steady hands on the wheel.

Use these seven tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up across seven rounds.

### Read

Read with care – math problems hide their gifts.

### Try

Try a strategy that fits the size of the numbers.

### Reflect

Reflect after each problem to lock the lesson in.

**A strong habit for Maryland mathematicians:** read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

Testinar.com



Scan me



# Your Step-by-Step Plan

A simple routine that turns practice into progress

## Step 1: Notice

**Notice the structure: warm-up, test, review, repair.**

Spend a few minutes waking up your memory before the test begins.

## Step 2: Practice

**Practice one full test in quiet conditions.**

Work in a calm spot and focus on careful thinking before speed.

## Step 3: Honest Check

**Check honestly without rushing.**

Circle missed questions and notice which topics keep showing up.

## Step 4: Polish

**Polish the rough spots before the next test.**

Read the explanation, repair the work, and bring that lesson into the next test.

## A Good 7-Week Maryland Rhythm

<b>Week 1</b>	Take Test 1 and chart your bay.
<b>Week 2</b>	Take Test 2 and slow down on word problems.
<b>Week 3</b>	Take Test 3 and lift fraction and decimal work.
<b>Week 4</b>	Take Test 4 and pay close attention to labels and units.
<b>Week 5</b>	Take Test 5 and compare your habits with your first test.
<b>Week 6</b>	Take Test 6 and practice staying calm during tricky questions.
<b>Week 7</b>	Take Test 7 with calm captain-style focus.



# Table of Contents

★ Practice Test 1	_____	21
★ Practice Test 2	_____	36
★ Practice Test 3	_____	51
★ Practice Test 4	_____	66
★ Practice Test 5	_____	80
★ Practice Test 6	_____	96
★ Practice Test 7	_____	110
<b>Practice Test Answer Keys</b>	_____	<b>125</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>130</b>

## 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)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks



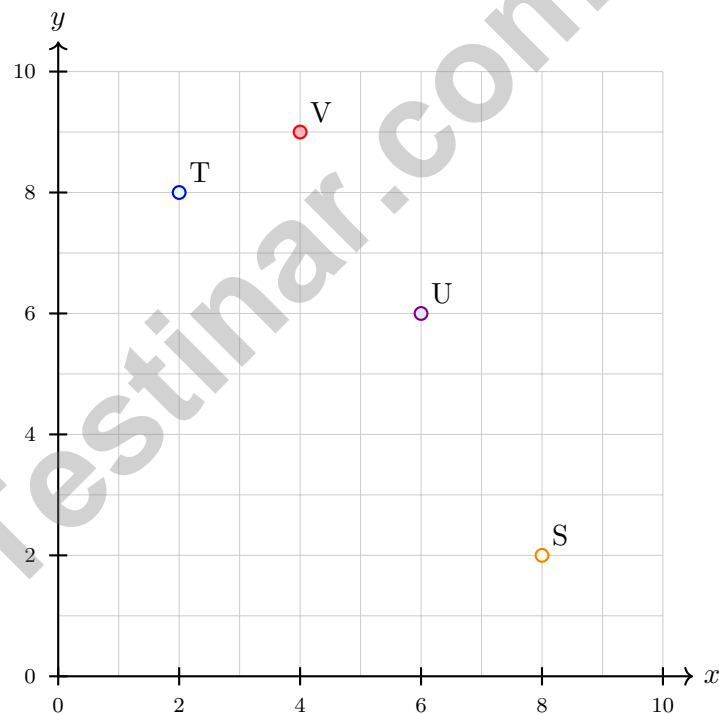
1) Carol saw an expression on a sign:  $(250 + 75) \times 2$ . She reasoned the result must be more than  $250 + 75$  but less than what?

- A. Less than  $250 + 75$                        C. Less than  $\frac{1}{2} \times (250 + 75)$   
 B. Less than  $3 \times (250 + 75)$                        D. Less than  $(250 + 75) \div 2$

2) Compare:  $5 \times 12$    $6 \times 10$

- A.  $>$      C.  $=$   
 B.  $<$      D. Cannot tell

3) Which point is located at  $(2, 8)$  on this coordinate plane?



- A. Point S     C. Point U  
 B. Point T     D. Point V

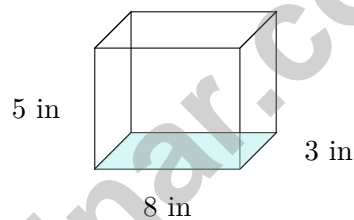


- 4) Find a common denominator for  $\frac{3}{5}$ ,  $\frac{1}{2}$ , and  $\frac{2}{10}$ .

*Record your answer in the space provided.*

- 5) A classroom is 9 meters long, 8 meters wide, and 3 meters high. What is the volume of air in the classroom?

- A. 20 cubic meters                       C. 156 cubic meters  
 B. 108 cubic meters                       D. 216 cubic meters



6)

Base area =  $24 \text{ in}^2$ . Volume = ?

- A.  $192 \text{ in}^3$                                        C.  $120 \text{ in}^3$   
 B.  $24 \text{ in}^3$                                        D.  $120 \text{ in}^2$

- 7) Compare the decimals: 0.45 and 0.54.

$$0.45 \square 0.54$$

- A.  $<$      C.  $=$   
 B.  $>$      D. Cannot compare



## 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)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks



1) A hardware store receives a shipment of nails weighing 42 kg. If the nails are packed in bags of 0.6 kg each, how many bags are in the shipment?

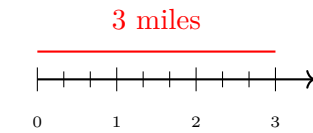
A. 70 bags

C. 60 bags

B. 65 bags

D. 75 bags

2) A trail is divided into  $\frac{1}{3}$ -mile segments. How many segments are in 3 miles?



Each mile is split into thirds.

A. 3

C. 9

B. 6

D. 12

3) What is  $0.45 \times 1000$ ?

A. 45

C. 4500

B. 450

D. 45000

4) A prism has volume  $200 \text{ m}^3$ , length 8 m, and width 5 m. Find its height.

*Record your answer in the space provided.*



## 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)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

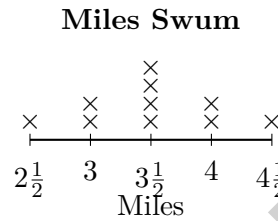
1 day = 24 hours (hr)    1 year = 52 weeks



1) Without computing, which is true?

- A.  $999 \times 7 > 1,000 \times 7$
- B.  $999 \times 7 < 1,000 \times 7$
- C.  $999 \times 7 = 1,000 \times 7$
- D. Cannot tell

2) The line plot displays the distance each swimmer swam in a practice, in miles:



How many swimmers swam at least  $3\frac{1}{2}$  miles?

- A. 4
- B. 5
- C. 6
- D. 7

3) Expression table: complete the missing value when 4.5 is multiplied by different powers of 10.

Expression	Value
$4.5 \times 10$	45
$4.5 \times 100$	?
$4.5 \times 1000$	4500

- A. 4.5
- B. 45
- C. 450
- D. 4500



## 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)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks





## 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.**

Testinar.com



## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice B is correct.** **(5.OA.A.2)** Carol is comparing copies of the same amount,  $(250 + 75)$ . Two copies are more than one copy, but less than three copies.
- Choice C is correct.** **(5.OA.A.2)** The expression  $5 \times 12$  can be regrouped as  $5 \times (2 \times 6)$ , which is  $(5 \times 2) \times 6 = 10 \times 6$ . That is the same as  $6 \times 10$ .
- Choice B is correct.** **(5.G.A.2)** Point T is 2 units to the right and 8 units up from the origin, so it is at  $(2, 8)$ .
- The correct answer is 10.** **(5.NF.A.2)** A common denominator must be a multiple of each denominator. Since 10 is a multiple of 5, 2, and 10, the LCD is 10.
- Choice D is correct.** **(5.NF.B.7)** Volume =  $9 \times 8 \times 3 = 216$  cubic meters.
- Choice C is correct.** **(5.NF.B.7)**  $V = B \times h = 24 \times 5 = 120$  in<sup>3</sup>. The height is 5 inches, so the answer must be in cubic inches.
- Choice A is correct.** **(5.NBT.B.7)** In the tenths place: 4 tenths < 5 tenths, so  $0.45 < 0.54$ .
- Choice A is correct.** **(5.NBT.B.6)**  $288 \div 12 = 24$  pencils per classroom. Check:  $12 \times 24 = 288$ .
- Choice D is correct.** **(5.MD.A.1)** Convert 4 feet to inches:  $4 \times 12 = 48$  inches. Add 6 inches:  $48 + 6 = 54$  inches.
- Choice D is correct.** **(5.G.A.2)** Rule A: 2, 6, 10; Rule B: 1, 4, 7. Second pair is  $(6, 4)$ , third is  $(10, 7)$ .
- Choice D is correct.** **(5.NF.A.2)**  $\frac{7}{8} \approx 1$  and  $\frac{3}{9} = \frac{1}{3} \approx \frac{1}{2}$ . So  $\frac{7}{8} - \frac{3}{9} \approx 1 - \frac{1}{2} = \frac{1}{2}$ .
- The correct answer is 120 m<sup>3</sup>.** **(5.NF.B.7)** Multiply the base area by the height:  $24 \times 5 = 120$  m<sup>3</sup>.
- Choice D is correct.** **(5.G.A.2)** The output should be 5 more than the input. For  $(5, 10)$ ,  $10 = 5 + 5$ , so this ordered pair belongs in the pattern.
- Choice B is correct.** **(5.OA.A.1)** The grouping changes the value. The left expression is  $(12 + 8) \div 4 = 20 \div 4 = 5$ , while the right expression is  $12 + (8 \div 4) = 12 + 2 = 14$ . Since  $5 < 14$ , the left side is less.
- The correct answer is  $\frac{1}{6}$ .** **(5.NF.B.6)** Multiply across:  $\frac{3 \times 4}{8 \times 9} = \frac{12}{72}$ . Divide both parts by 12 to simplify to  $\frac{1}{6}$ .
- Choice A is correct.** **(5.OA.A.1)** Multiply first:  $3 \times 2 = 6$ . Then add and subtract from left to right:  $12 + 6 = 18$ , and  $18 - 3 = 15$ .
- The correct answer is 9.** **(5.NBT.B.7)** Use place-value reasoning to keep the decimal in the correct place. Multiply both by 10:  $72 \div 8 = 9$ . This confirms the answer.
- Choice C is correct.** **(5.MD.B.2)** Add the costs shown by the marks:  $(2 \times 2) + (4 \times 3) + (6 \times 2) + (8 \times 3) = 4 + 12 + 12 + 24 = 52$ , so the total cost is \$52.
- Choices A, B are correct.** **(5.NF.B.5)** A and B are larger than  $\frac{4}{5}$  because multiplying by factors greater than 1 enlarges the starting amount. C and D use factors less than 1, so those products are smaller.
- Choice D is correct.** **(5.NBT.A.2)** Yes. Multiplying by 100 gives 4,500, and that product ends with exactly 2 zeros.
- Choice B is correct.** **(5.MD.C.3)** Work one prism at a time:  $10 \times 5 \times 3 = 150$ ,  $8 \times 4 \times 3 = 96$ , and  $7 \times 4 \times 3 = 84$ . Add the non-overlapping volumes:  $150 + 96 + 84 = 330$  cubic feet.
- Choice B is correct.** **(5.NBT.A.2)**  $46 \times 10^2 = 46 \times 100 = 4600$ , so  $n = 46$ .
- Choice D is correct.** **(5.MD.C.5)**  $\frac{1}{2} \times \frac{4}{5} = \frac{4}{10} = \frac{2}{5} = \frac{8}{20}$ .  $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2} = \frac{10}{20}$ . Since  $\frac{10}{20} > \frac{8}{20}$ , the second is larger.
- Choice D is correct.** **(5.NBT.B.7)** Add:  $5.04 + 2.93 = 7.97$  (hundredths:  $4 + 3 = 7$ ; tenths:  $0 + 9 = 9$ ; ones:  $5 + 2 = 7$ ).
- Choice C is correct.** **(5.NF.B.7)** The unit fraction is the amount being shared, so divide  $\frac{1}{3}$  by 4. The equation is  $\frac{1}{3} \div 4 = n$ .
- Choice A is correct.** **(5.NF.B.5)**  $\frac{1}{2} < 1$ , so  $\frac{1}{2} \times 20 < 20$ .
- Choice A is correct.** **(5.G.B.3)** Perpendicular lines meet at a right angle ( $90^\circ$ ). The bottom and left sides of a rectangle meet at a right angle.
- Choice B is correct.** **(5.G.A.1)** E has x-coordinate 2, F has x-coordinate 5, G has x-coordinate 7. In order:  $2 < 5 < 7$ , so E, F, G.
- Choice A is correct.** **(5.MD.B.2)** Add the unique costs:  $\$1 + \$2 + \$3 + \$4 + \$5 = \$15$ .
- The correct answer is isosceles.** **(5.G.B.4)** Two side lengths are equal, so Triangle P is isosceles.



**Dear Student,**

★ Seven practice tests taught you something bigger than math: persistence. Persistence is the habit of continuing even when something feels difficult. ★

◇ **A growth mindset says:** "I can't do it yet." That tiny word—yet—changes everything. ◇

**Growth Statements**

- **Instead of:** "I'm bad at this." **Say:** "I'm learning this."
- **Instead of:** "This is too hard." **Say:** "I'll try one step."
- **Instead of:** "I made a mistake." **Say:** "Now I know what to fix."
- **Instead of:** "I'm stuck." **Say:** "I'll come back with a plan."

**Keep going.** You proved you can improve—seven times.

Email me at [reza@testinar.com](mailto:reza@testinar.com).

**Reza Nazari & Jay Daie**

Your Math Coaches (Keep Growing)

Testinar.com

# PRACTICE TODAY. PERFORM TOMORROW.

Success in math starts with practice! This book provides the **practice, confidence, and skills** your child needs to excel on the Grade 5 Math test and beyond.

## KEY BENEFITS:



### TARGETED PRACTICE

Focus on the most important Grade 5 math skills.



### STANDARD-ALIGNED

All tests align with state standards for Grade 5.



### BUILD CONFIDENCE

Strengthen skills, reduce test anxiety, and boost confidence.



### IMPROVE PERFORMANCE

Timed practice helps improve speed and accuracy.



### ACHIEVE SUCCESS

Develop strong test-taking skills and achieve your best score!

## PERFECT FOR:

✓ Classroom Practice

✓ Homework Help

✓ Test Preparation

✓ Summer Learning

✓ On-the-Go Practice

✓  
PRACTICE  
PREPARE  
SUCCEED



## STRONG SKILLS. BRIGHT FUTURE.

Give your child the tools they need to succeed in math and in life!



Visit [testinar.com/math5](https://testinar.com/math5) for more Grade 5 math resources and practice materials!



TRUSTED  
BY PARENTS

Quality resources you can trust.



DESIGNED  
FOR SUCCESS

Proven practice for real results.



SUPPORT  
YOUR CHILD

Every step of the way.