

6

Maryland

MCAP

GRADE 5 MATH

PRACTICE TESTS

Complete Standards-Based Practice
— for Grade 5 Math Success —



$$A = \frac{1}{2}bh$$



$$5^2 = 25$$



**6 FULL-LENGTH
PRACTICE TESTS**

Realistic style questions



**STANDARDS-BASED
PRACTICE**

Covers all Grade 5
Math standards



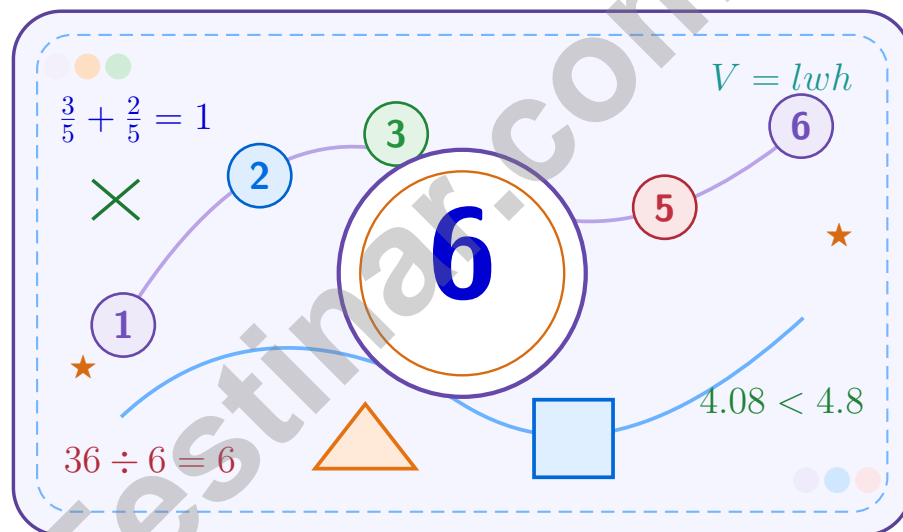
**BUILD CONFIDENCE.
IMPROVE SCORES.**

Target weak areas and
achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

6 Maryland MCAP Grade 5 Math Practice Tests

A six-step confidence climb with clear review, smart strategy, and practice that gets stronger every round



Six full tests, a focused skill booster, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.

Jay Daie and Reza Nazari



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Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these six 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 fast.

Try

Give each problem your best thinking.

Check

Study mistakes and learn what happened.

Rise

Bring that lesson into the next round.

A strong habit for every page: 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.

How to Use This Book

A simple practice routine that turns six tests into steady growth

Step 1: Warm Up

Start with the quick review.
Spend a few minutes refreshing the ideas before you start a test.

Step 2: Take the Test

Take one full practice test.
Work in a quiet space and let accuracy matter more than speed.

Step 3: Study the Pattern

Check your work honestly.
Circle missed questions and notice patterns in the mistakes.

Step 4: Learn, Then Retry

Read the explanation and try again.
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.

A Six-Week Climb Map

Week	Mission Focus
Week 1	Take Test 1 and review any place-value or operation slips.
Week 2	Take Test 2 and focus on showing neat, easy-to-read work.
Week 3	Take Test 3 and give extra time to fractions or decimals if needed.
Week 4	Take Test 4 and slow down on word problems and units.
Week 5	Take Test 5 and compare your score and habits with earlier rounds.
Week 6	Take Test 6 and finish with calm, careful, confident work that uses everything you practiced before.



Scan me

Test Overview

What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Maryland MCAP. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

Selected-Response Questions

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

Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

What strong work looks like: the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



Table of Contents

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Grade 5 Mathematics

1

Questions: 40 Duration: No time limit

Calculator Policy: Calculators are not allowed



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)

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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 cooler measures 5 feet long, 5 feet wide, and 4 feet tall. What is its volume?
- A. 25 cubic feet C. 100 cubic feet
 B. 20 cubic feet D. 14 cubic feet
- 2) Compare $12 \times \frac{2}{4}$ to $12 \times \frac{1}{2}$. Which is correct?
- A. $12 \times \frac{2}{4} <$ the other C. $12 \times \frac{2}{4} >$ the other
 B. Cannot be determined D. $12 \times \frac{2}{4} =$ the other
- 3) A pool holds 240 gallons of water. A worker drains $\frac{1}{6}$ of the water, then uses $\frac{1}{2}$ of that drained water for cleaning. How many gallons are used for cleaning?
- A. 20 gallons C. 60 gallons
 B. 40 gallons D. 80 gallons
- 4) A student multiplies 0.18 by 10,000 and gets 18. Is the result correct?
- A. Correct
 B. Too small; correct is 180
 C. Too large; correct is 1.8
 D. Too small; correct is 1,800
- 5) For the rule "double the input, then add 3," which ordered pairs are correct for inputs 0, 1, 2, and 3?
- A. (0, 3), (1, 5), (2, 7), (3, 9)
 B. (0, 2), (1, 3), (2, 4), (3, 5)
 C. (0, 0), (1, 2), (2, 4), (3, 6)
 D. (3, 0), (5, 1), (7, 2), (9, 3)



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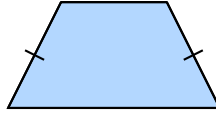
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- 1) Which pair of line segments are congruent in this figure?



- A. Top and bottom sides
- B. Left and right sides
- C. All four sides
- D. No sides are congruent
- 2) Without calculating the products, which expression is greatest?
- A. 18×25
- B. 18×26
- C. 17×25
- D. 17×26
- 3) Place-value chart for 31.289. Round to the nearest tenth.

Tens	Ones	Tenths	Hundredths	Thousandths
3	1	2	8	9

What is the result?

- A. 31.2
- B. 31.28
- C. 31.29
- D. 31.3



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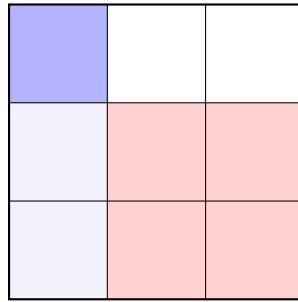
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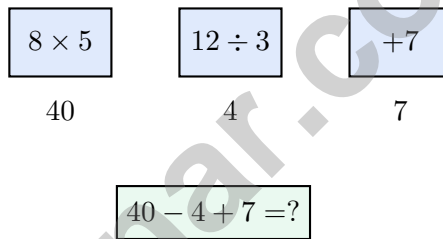
1) Find: $\frac{1}{3} \times \frac{2}{3}$



- A. $\frac{2}{9}$
- B. $\frac{1}{3}$

- C. $\frac{3}{6}$
- D. $\frac{2}{6}$

2) Evaluate: $(8 \times 5) - (12 \div 3) + 7$



- A. 39
- B. 40

- C. 43
- D. 51



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1) What is 5.678 rounded to the nearest hundredth?

A. 5.67

C. 5.7

B. 5.68

D. 6.0

2) Which expression is equivalent to 10^4 ?

A. 10,000

C. 100,000

B. 1,000

D. 40

3) Find: 0.009×10^3 .

Record your answer in the space provided.

4) What is 1,500 grams expressed in kilograms?

A. 0.15 kg

C. 15 kg

B. 150 kg

D. 1.5 kg

5) A step-shaped solid is decomposed into three non-overlapping rectangular prisms. The prisms measure 11 meters by 3 meters by 4 meters, 9 meters by 5 meters by 4 meters, and 8 meters by 2 meters by 4 meters. What is the total volume?

A. 312 cubic meters

C. 376 cubic meters

B. 244 cubic meters

D. 196 cubic meters



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

- 1) **Choice C is correct.** (5.MD.C.5) Use the rectangular-prism volume formula: $5 \times 5 \times 4 = 100$. So the volume is 100 cubic feet.
- 2) **Choice D is correct.** (5.NF.B.5) $\frac{2}{4} = \frac{1}{2}$, so both products are equal.
- 3) **Choice A is correct.** (5.NF.B.6) First find $\frac{1}{6}$ of 240 gallons: $\frac{1}{6} \times 240 = 40$. Half of that amount is $\frac{1}{2} \times 40 = 20$ gallons.
- 4) **Choice D is correct.** (5.NBT.A.2) Multiplying by 10,000 moves the decimal four places right, so 0.18 becomes 1,800. The student's 18 is too small.
- 5) **Choice A is correct.** (5.G.A.2) Check each input: double it, then add 3. For example, input 2 gives $2 \times 2 + 3 = 7$.
- 6) **Choice C is correct.** (5.NF.A.2) $\frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$. Both ate equal amounts, so together they ate half the bar.
- 7) **Choice B is correct.** (5.OA.B.3) Check the matching terms: $1 \times 4 = 4$, $3 \times 4 = 12$, $5 \times 4 = 20$, and $7 \times 4 = 28$.
- 8) **Choice C is correct.** (5.NF.B.7) Volume = $10 \times 8 \times 6 = 480 \text{ in}^3$.
- 9) **Choice A is correct.** (5.MD.C.4) Use length, width, and height to count the cubes. $4 \times 4 = 16$ cubes per layer, and 3 layers make $16 \times 3 = 48$.
- 10) **Choice C is correct.** (5.NF.A.2) The denominator 5 is multiplied by 5 to make 25. Multiply the numerator by 5 also: $\frac{4}{5} = \frac{20}{25}$.
- 11) **Choice D is correct.** (5.OA.A.1) The student added before multiplying, as if the expression were $(8 + 3) \times 2$. In the original expression, multiplication comes first: $8 + (3 \times 2) = 8 + 6 = 14$.
- 12) **Choice A is correct.** (5.NF.A.2) LCD of 8 and 12 is 24. $\frac{7}{8} = \frac{21}{24}$ and $\frac{5}{12} = \frac{10}{24}$.
- 13) **Choice B is correct.** (5.NBT.A.2) Dividing by 100 moves the decimal point two places to the left. $4,200 \div 100 = 42$.
- 14) **Choice A is correct.** (5.NBT.B.7) On a 10×10 grid, shading 4 columns (width) and 6 rows (height) covers $4 \times 6 = 24$ squares out of 100, which is 0.24.
- 15) **Choice B is correct.** (5.NBT.B.6) $2,070 \div 18 = 115$ boxes. Check: $18 \times 115 = 2,070$.
- 16) **Choice B is correct.** (5.NF.B.7) Splitting $\frac{1}{6}$ into 2 equal parts means $\frac{1}{6} \div 2 = \frac{1}{12}$. Each small part is $\frac{1}{12}$ of the whole.
- 17) **Choice D is correct.** (5.NF.B.4) Two rows of $\frac{2}{5}$: $2 \times \frac{2}{5} = \frac{4}{5}$.
- 18) **Choices A, B are correct.** (5.NBT.A.2) $10^3 = 1,000 = 10 \cdot 10 \cdot 10$. C uses addition, and D equals 10,000.
- 19) **Choice A is correct.** (5.NF.A.1) $7 - 3 = 4$ and $\frac{4}{6} - \frac{2}{6} = \frac{2}{6}$. Result: $4\frac{2}{6}$.
- 20) **Choice A is correct.** (5.NBT.B.7) Only A is true. B should be 6.01, C should be 7.93, and D should be 7.85.
- 21) **Choice A is correct.** (5.NF.B.7) The one-sixth piece is split into 5 equal parts. So the matching equation is $\frac{1}{6} \div 5 = n$.
- 22) **Choice D is correct.** (5.NF.A.2) $\frac{1}{5} = \frac{3}{15}$. $\frac{11}{15} - \frac{3}{15} = \frac{8}{15}$.
- 23) **The correct answer is 5.** (5.MD.C.5) Divide the volume by the base area: $60 \div 12 = 5$, so the height is 5 cm.
- 24) **Choice D is correct.** (5.G.B.4) An obtuse triangle has one angle greater than 90 degrees. Since 120 degrees is greater than 90 degrees, this is an obtuse triangle.
- 25) **Choice A is correct.** (5.NF.B.6) Grid: $5 \times 4 = 20$ cells total. Shaded (1 of 4 rows, 3 of 5 columns): $1 \times 3 = 3$ cells. Answer: $\frac{3}{20}$.
- 26) **The correct answer is 10.** (5.OA.A.2) The expression $(45 - 9)$ is the original amount. Multiplying it by 10 makes 10 copies of that amount.
- 27) **The correct answer is 10000.** (5.NBT.A.2) Think $5 \times 2 = 10$, then include the three zeros from 50 and 200. The product is 10,000.
- 28) **Choice C is correct.** (5.MD.C.5) Choose the operation from the story, then keep the unit with the answer. Subtract: $250 - 165.5 = 84.5$ liters needed. This confirms the answer.
- 29) **Choice A is correct.** (5.MD.A.1) First convert 7 feet to inches: $7 \times 12 = 84$. Then add the extra 6 inches: $84 + 6 = 90$ inches.
- 30) **The correct answer is 9 units up.** (5.G.A.1) In $(3, 9)$, the second coordinate is the y -coordinate. It tells how far up the point is from the origin.



Conductor's Final Rehearsal Notes

Greetings, Master Conductor!

★ Brilliant performance! You've conducted six complete mathematical symphonies, orchestrating solutions with precision and harmony like a world-class conductor! Each problem required you to coordinate multiple mathematical elements, maintain tempo, and create elegant solutions. Your mathematical musicianship has developed beautifully through this intensive rehearsal period! ★

◇ **Here's what great conductors know:** they don't just read the notes; they understand the entire composition and how every part connects. You've developed that same comprehensive understanding through these six tests! You see how mathematical concepts relate to each other and how to bring them together into coherent solutions. That's mathematical mastery! ◇

Orchestra Performance Review

- **Rhythm and Timing:** You pace yourself effectively through tests without rushing!
- **Harmony:** You balance different problem-solving methods beautifully!
- **Technical Mastery:** You execute mathematical procedures with confidence!
- **Performance Ready:** You're prepared for opening night on test day!

Remember this musical wisdom: the best performances happen when musicians stop thinking about technique and simply play from the heart. After six complete rehearsals, your mathematical techniques have become second nature. On test day, trust your preparation and let your knowledge flow naturally. You're ready for a standing ovation!

Want to share your mathematical compositions or discuss a particularly elegant solution? Send your musical insights to reza@testinar.com. I appreciate mathematical artistry!

Reza Nazari & Jay Daie

Your Math Coaches for Staying Focused

6 FULL-LENGTH TESTS. ENDLESS POTENTIAL.

PRACTICE TODAY. SUCCEED TOMORROW.

Give your child the tools they need to build strong math skills and test-taking confidence! This book includes **6 full-length practice tests** along with standards-based practice, mixed review, word problems, and a complete answer key.

★★★
PRACTICE
WITH PURPOSE.
ACHIEVE WITH
CONFIDENCE.

$$7 \times 6 = 42$$

$$\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$



WHAT'S INSIDE:



6 FULL-LENGTH PRACTICE TESTS

Realistic tests designed to reflect the actual test format and help build confidence.



STANDARDS-BASED PRACTICE

Covers all essential Grade 5 math standards with clear explanations and examples.



MIXED REVIEW

Reinforces key concepts with a variety of question types and review exercises.



WORD PROBLEMS

Build critical thinking and problem-solving skills with real-world scenarios.



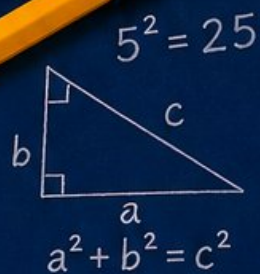
COMPLETE ANSWER KEY

Step-by-step explanations for every question to support learning and growth.



IMPROVE. PRACTICE. ACHIEVE.

Consistent practice leads to stronger skills, higher scores, and greater success.



WHY PRACTICE MAKES A DIFFERENCE



BUILD CONFIDENCE

Feel prepared and ready for any challenge.



IMPROVE ACCURACY

Strengthen skills and reduce careless mistakes.



THINK STRATEGICALLY

Develop problem-solving skills and deepen understanding.



MANAGE TIME

Practice under timed conditions to build stamina.



STAY MOTIVATED

Track progress and celebrate every win.



ACHIEVE SUCCESS

Reach goals and unlock your full potential!



Visit testinar.com/math5

for more Grade 5 math resources and practice materials!



Testinar

Smart Practice. Stronger Results.