

6

Ohio
OST

GRADE 5 MATH

PRACTICE TESTS

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



**6 FULL-LENGTH
PRACTICE TESTS**

Realistic style questions



**STANDARDS-BASED
PRACTICE**

Covers all Grade 5
Math standards



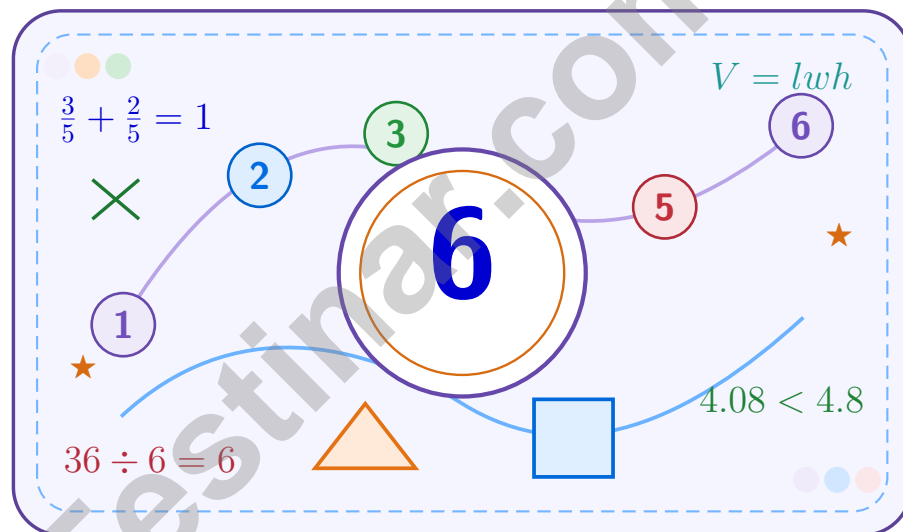
**BUILD CONFIDENCE.
IMPROVE SCORES.**

Target weak areas and
achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

6 Ohio OST 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 Ohio OST. 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

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TIME

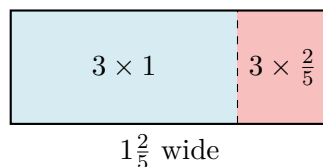
1 minute (min) = 60 seconds (sec) 1 week = 7 days

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

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



- 1) Which multiplication matches the area model showing $3 \times 1\frac{2}{5}$?



- A. $3 + 1\frac{2}{5}$
 C. $\frac{3}{5} \times 1$
 B. $3 + \frac{2}{5}$
 D. $3 \times 1 + 3 \times \frac{2}{5}$
- 2) A truck can carry 2,500 pounds. If boxes weigh 125 pounds each, how many boxes can the truck carry at maximum capacity?
- A. 18 boxes
 C. 20 boxes
 B. 22 boxes
 D. 24 boxes
- 3) What is the missing numerator? $\frac{5}{7} = \frac{?}{14}$
- A. 7
 C. 10
 B. 8
 D. 12
- 4) Which table correctly shows powers of 10?

Power	Value	Zeros
10^1	10	1
10^2	100	2
10^3	1000	3
10^4	10000	4

- A. Only the exponent pattern is true
 C. Both patterns are true
 B. Only the added-zero pattern is true
 D. Neither pattern is true



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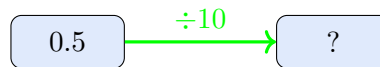


1) Swimming pool: base area 60 m^2 , depth 4 m. Volume =?

- A. 64 m^3
 B. 240 m^3

- C. 15 m^3
 D. 120 m^3

2) The diagram shows how place values relate. What is the missing number?



- A. 5
 B. 0.05

- C. 0.005
 D. 50

3) Which pair of expressions has the same value?

- A. $3 \times (4 + 5)$ and $3 \times 4 + 5$
 B. $2 \times (10 - 3)$ and $2 \times 10 - 3$
 C. $4 \times (6 + 2)$ and $4 \times 6 + 4 \times 2$
 D. $5 + (3 \times 7)$ and $(5 + 3) \times 7$

4) An equilateral triangle and a square both have all sides equal. What attribute shows that the equilateral triangle is not a square?

Record your answer in the space provided.

5) Which product equals $\frac{6}{35}$?

- A. $\frac{1}{6} \times \frac{6}{35}$
 B. $\frac{3}{5} \times \frac{2}{5}$

- C. $\frac{6}{7} \times \frac{1}{7}$
 D. $\frac{2}{5} \times \frac{3}{7}$



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

- 1) **Choice D is correct.** (5.NF.5b) The area model shows the distributive property: $3 \times 1\frac{2}{5} = 3 \times 1 + 3 \times \frac{2}{5} = 3 + \frac{6}{5} = 4\frac{1}{5}$.
- 2) **Choice C is correct.** (5.MD.5) Choose the operation from the story, then keep the unit with the answer. Divide: $2,500 \div 125 = 20$ boxes. This confirms the answer.
- 3) **Choice C is correct.** (5.NF.2) The denominator increased from 7 to 14 (multiply by 2). Multiply the numerator by 2: $5 \times 2 = 10$.
- 4) **Choice C is correct.** (5.NBT.2) The exponent tells the number of zeros, and each power adds one more zero.
- 5) **Choice B is correct.** (5.G.2) Check: for first coordinates 1, 2, and 3, doubling and adding 1 gives 3, 5, and 7.
- 6) **Choice C is correct.** (5.MD.2) The marks show 3 boards at $\frac{1}{2}$ ft, 2 boards at $1\frac{1}{2}$ ft, 3 boards at $2\frac{1}{2}$ ft, and 1 board at 3 ft. Total: $(\frac{1}{2} \times 3) + (1\frac{1}{2} \times 2) + (2\frac{1}{2} \times 3) + (3 \times 1) = 1\frac{1}{2} + 3 + 7\frac{1}{2} + 3 = 15$ feet.
- 7) **Choice A is correct.** (5.NBT.2) Use the zeros to reason backward: 400 has two zeros, and the product has four trailing zeros. 900×400 gives 36 with four zeros, or 360,000.
- 8) **Choice D is correct.** (5.NF.5b) Since $\frac{3}{4} < 1$, multiplying by it makes the result smaller than 5.
- 9) **Choice D is correct.** (5.NBT.5) Round 26 up to 30 (since $6 \geq 5$) and 37 up to 40 (since $7 \geq 5$). Then $30 \times 40 = 1,200$.
- 10) **Choice A is correct.** (5.NF.2) $\frac{7}{10} - \frac{5}{10} = \frac{2}{10}$, which simplifies to $\frac{1}{5}$ gallon.
- 11) **The correct answer is 705000.** (5.NBT.2) Move the decimal point five places right (filling in zeros): $7.05 \rightarrow 705,000$.
- 12) **Choice C is correct.** (5.OA.2) Each group has $(6 + 3) = 9$ boxes; 4 groups total $4 \times 9 = 36$ boxes.
- 13) **Choice B is correct.** (5.NBT.2) Multiplying by 100 moves each digit two places to a larger place value. That changes 24.6 to 2,460.
- 14) **Choice D is correct.** (5.NF.7c) The unit fraction is the amount being shared, so divide $\frac{1}{10}$ by 5. The equation is $\frac{1}{10} \div 5 = n$.
- 15) **The correct answer is $6\frac{1}{6}$.** (5.NF.1) $4 + 1 = 5$. $\frac{5}{6} + \frac{2}{6} = \frac{7}{6} = 1\frac{1}{6}$. Total: $5 + 1\frac{1}{6} = 6\frac{1}{6}$.
- 16) **Choice B is correct.** (5.MD.5) The base area is $10 \times 3 = 30$ square centimeters. Since $120 \div 30 = 4$, the height is 4 cm.
- 17) **Choice B is correct.** (5.G.4) A rectangle is a quadrilateral (4 sides), a parallelogram (2 pairs of parallel sides), and a rectangle (all right angles). Trapezoid does not apply.
- 18) **Choice B is correct.** (5.G.2) $5 + 7 = 12$. Choice D is not correct because $2 + 7 = 9$, not 8.
- 19) **Choices A, B are correct.** (5.NF.7c) Each whole has 5 fifths, so 4 wholes have $4 \times 5 = 20$ fifths. Choices C and D use a common miscount of 4 groups of 4 instead of 4 groups of 5.
- 20) **Choice D is correct.** (5.NF.5b) $24 \times \frac{1}{6} = 4$ students are absent. Scaling down by $\frac{1}{6}$ gives a smaller number.
- 21) **Choice B is correct.** (5.NBT.3a) "Ten and three tenths" means 10 wholes and 3 tenths: 10.3.
- 22) **Choice B is correct.** (5.MD.5a) The known width and height make groups of $5 \times 9 = 45$ cubic inches. Since $180 \div 45 = 4$, the length is 4 inches.
- 23) **The correct answer is 9 ft.** (5.MD.1) $3 \times 3 = 9$ feet. Each yard has 3 feet, so 3 yards has three groups of 3 feet.
- 24) **The correct answer is $2\frac{2}{3}$.** (5.NF.1) Rewrite $5\frac{1}{3} = 4\frac{4}{3}$ (borrow). Subtract: $(4 - 2) + (\frac{4}{3} - \frac{2}{3}) = 2\frac{2}{3}$.
- 25) **Choice A is correct.** (5.NBT.7) $31.05 - 12.78 = 18.27$. Requires borrowing: regroup ones and tenths.
- 26) **The correct answer is $1\frac{1}{4}$.** (5.NF.2) $\frac{3}{4} + \frac{1}{2} = \frac{3}{4} + \frac{2}{4} = \frac{5}{4} = 1\frac{1}{4}$.
- 27) **Choice D is correct.** (5.NF.2) $5\frac{6}{7} \approx 6$ and $2\frac{1}{9} \approx 2$. So $5\frac{6}{7} - 2\frac{1}{9} \approx 6 - 2 = 4$.
- 28) **Choice A is correct.** (5.NBT.2) $4200 \div 100 = 42$ cartons. Work backward from the product to find the missing factor.
- 29) **Choice B is correct.** (5.NBT.3b) Trailing zeros do not change value: $0.3 = 0.30 = 0.300$ (all equal 3 tenths).
- 30) **Choice A is correct.** (5.MD.5c) A quadrilateral with two pairs of parallel sides and four right angles is a rectangle. Since not all sides are the same length, it is not a square.
- 31) **Choice C is correct.** (5.NF.7c) $3 \div \frac{1}{3} = 3 \times 3 = 9$. There are 9 segments.



A Message From Your Math Partner

Hey there, Problem Solver!

◇ Incredible work! You've journeyed through six complete practice tests, and that's no small accomplishment! Each question you tackled strengthened your mathematical thinking. When you began, some problems might have felt overwhelming, but now you've developed the skills to break them down systematically. You've transformed into a confident mathematician who understands that persistence beats perfection every single time! ◇

★ **Here's something mathematicians understand:** mistakes are simply opportunities to learn something new. The greatest problem-solvers in history made countless errors before their breakthroughs. Through these six tests, you've practiced that same growth mindset. You've discovered that every challenging problem teaches you something valuable, and that knowledge stays with you forever! ★

Your Mathematical Growth Journey

- **Problem-Solving Skills:** EXCEPTIONALLY DEVELOPED! You can analyze complex situations with confidence!
- **Strategic Thinking:** SIGNIFICANTLY STRENGTHENED! You recognize patterns and apply effective strategies!
- **Persistence Level:** REMARKABLY HIGH! You've proven you can work through any challenge!
- **Test Readiness:** COMPLETELY PREPARED! You have all the tools you need to succeed!

Remember this: test day is your opportunity to demonstrate everything you've learned! You've completed six comprehensive practice tests; that's substantial preparation! You've analyzed problems, applied strategies, and developed mathematical confidence. Now it's time to showcase your abilities! Take a calming breath, trust your preparation, and remember that every skill you've built is ready to support you. You've got this!

I'm genuinely proud of your dedication and effort! If you'd like to share your experiences, ask questions, or simply need encouragement, please email me at reza@testinar.com. I'd be delighted to hear from you!

Reza Nazari & Jay Daie

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.

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!



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Smart Practice. Stronger Results.