

4

COMPLETE

Ohio OST

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



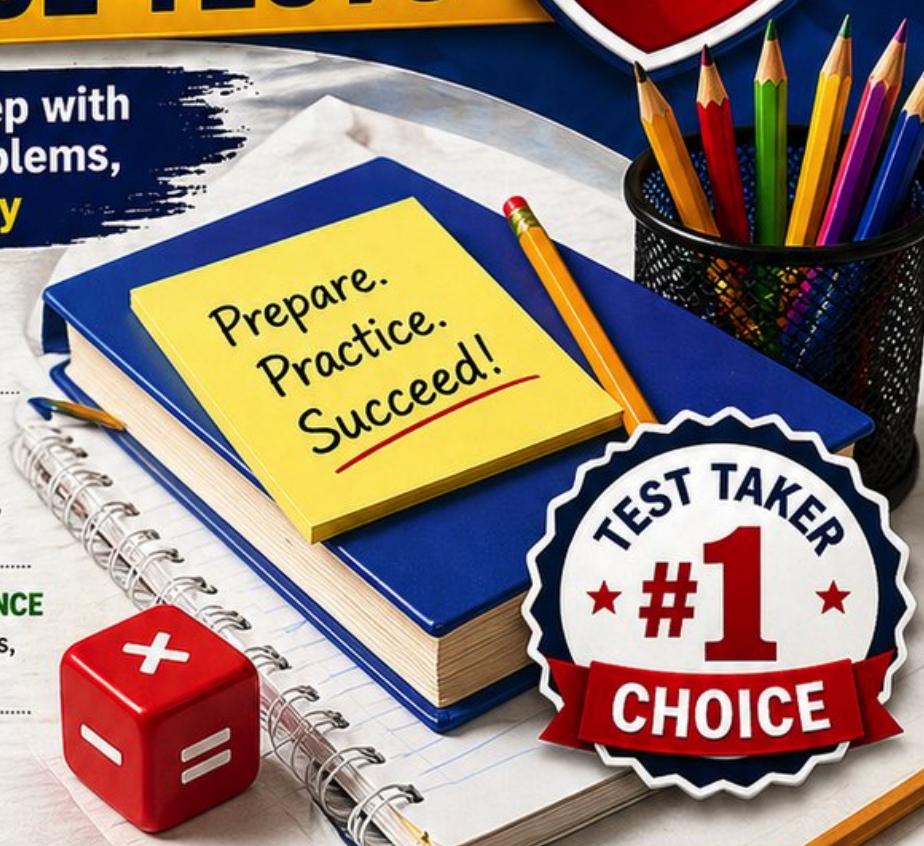
- ✓ **COVERS ALL ESSENTIAL TOPICS**
Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more



- ✓ **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**



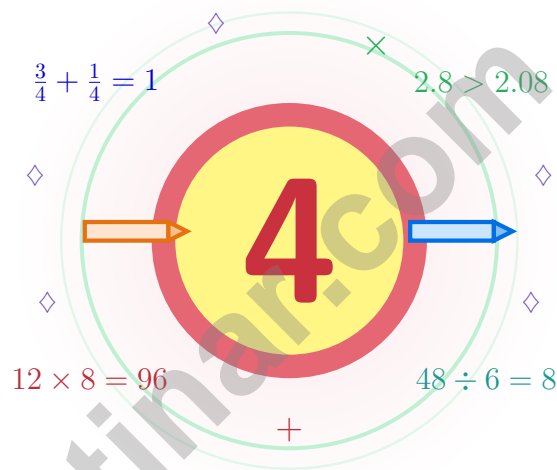
**PERFECT FOR
CLASSROOM,
HOME, OR
SELF-STUDY**



**ALIGNED TO
OHIO
STATE STANDARDS
(OST)**

4 Ohio OST Grade 5 Math Practice Tests

Four chances to read carefully, solve smartly, and grow stronger



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

Jay Daie and Reza Nazari



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Hello, Ohio – Four Tests, Four Wins

Four chances to grow your math mind one careful step at a time

Ohio Grade 5: This Mission Is for You

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math is like an Ohio season – it changes, but the careful student notices what stays the same.

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.

Watch

Watch what the question really wants from you.

Try

Try a strategy that fits the size of the numbers.

Polish

Polish your steps, units, and the final answer.

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

Four Tests, One Routine

A four-step routine that turns practice into real improvement

Step 1: Open

Open the warm-up review and use it.

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

Step 2: Test

Take the test with steady focus.

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

Step 3: Reflect

Notice what was sharp and what was shaky.

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

Step 4: Sharpen

Practice the shaky skills before the next round.

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

A Four-Week Ohio Mission Map

Week	Mission Focus
Week 1	Take Test 1 like a long fall walk – soft pace, sharp eyes.
Week 2	Take Test 2 and lift word problems and step-showing.
Week 3	Take Test 3 to polish fractions, decimals, and conversions.
Week 4	Take Test 4 with calm, careful focus.



Scan me

Test-Style Practice

What these four practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Buckeye State for the Ohio OST with the steady focus of a long fall walk. 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 OST-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)

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

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



1) Which shows a correct way to multiply $\frac{1}{3} \times \frac{2}{5}$?

A. $\frac{1+2}{3+5} = \frac{3}{8}$

B. $\frac{1 \times 2}{3+5} = \frac{2}{8}$

C. $\frac{1 \times 2}{3 \times 5} = \frac{2}{15}$

D. $\frac{1+2}{3 \times 5} = \frac{3}{15}$

2)

Student	Work Shown	Total
Kai	$19 \times (20 + 2) = (19 \times 20) + (19 \times 2) = 380 + 38$	418
Leah	$19 \times (20 + 2) = 380 + 2$	382
Mara	$(20 \times 22) - 1 = 440 - 1$	439

Which student's work correctly finds 19×22 ?

A. Kai

B. Leah

C. Mara

D. None of them

3) What is $3 \div \frac{1}{4}$?

A. 3

B. 8

C. 12

D. 16

4) A child is 1.35 meters tall. How many centimeters is that?

A. 13.5 cm

B. 135 cm

C. 1,350 cm

D. 13,500 cm

5) Without calculating, is $1,205 \times (3 + 2)$ greater than, less than, or equal to $5 \times (3 + 2)$?

A. Cannot tell

B. Less than

C. Equal to

D. Greater than



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1) Look at the two figures. Which property do both figures share?



Rectangle



Square

- A. Both have four right angles.
- B. Both have all sides the same length.
- C. They have different numbers of sides.
- D. Neither figure has right angles.

2) What is $0.6 \div 100$?

- A. 0.6
- B. 0.06
- C. 0.006
- D. 6

3) Which statement is *false*?

- A. $0.5 = 0.500$
- B. $0.05 = \frac{5}{100}$
- C. $0.005 = 0.05$
- D. $0.005 = \frac{5}{1000}$



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- 1) An electrician needs $\frac{1}{8}$ meter, $\frac{1}{10}$ meter, and $\frac{1}{12}$ meter of wire. Estimate the total.
- A. About $\frac{1}{2}$ meter
- B. About 1 meter
- C. About $\frac{1}{3}$ meter
- D. More than $1\frac{1}{2}$ meters
- 2) A rectangular drawer measures 12 inches long, 7 inches wide, and 4 inches tall. What is its volume?
- A. 84 cubic inches
- B. 336 cubic inches
- C. 48 cubic inches
- D. 28 cubic inches
- 3) Which expression represents “subtract 8 from twice the sum of 6 and 4”?
- A. $8 - 2 \times (6 + 4)$
- B. $(8 - 2) \times (6 + 4)$
- C. $2 \times 6 + 4 - 8$
- D. $2 \times (6 + 4) - 8$
- 4) A marathon is about 42 kilometers. How many meters is that?
- A. 4.2 m
- B. 420 m
- C. 4,200 m
- D. 42,000 m



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- 1) Two patterns use the term number as the input. Pattern A is the term number, and Pattern B is twice the term number. What are the ordered pairs for terms 1, 2, and 3?
- A. (1, 2), (2, 4), (3, 6)
 - B. (1, 1), (2, 2), (3, 3)
 - C. (1, 3), (2, 4), (3, 5)
 - D. (2, 1), (4, 2), (6, 3)
- 2) For three fractions with denominators 4, 6, and 8, what is the least common denominator?
- A. 24
 - B. 12
 - C. 48
 - D. 192
- 3) Which number is one-hundredth of 32.7?
- A. 3.27
 - B. 0.327
 - C. 0.0327
 - D. 327
- 4) A piece of ribbon is $\frac{5}{6}$ yard long. Mia cuts off $\frac{3}{8}$ yard. How much ribbon is left?
- A. $\frac{1}{24}$ yard
 - B. $\frac{5}{24}$ yard
 - C. $\frac{11}{24}$ yard
 - D. $\frac{7}{12}$ yard



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 C is correct.** **(5.NF.5b)** To multiply fractions, multiply the numerators and multiply the denominators: $\frac{1}{3} \times \frac{2}{5} = \frac{1 \times 2}{3 \times 5} = \frac{2}{15}$.
- 2) **Choice A is correct.** **(5.NBT.5)** $19 \times 22 = 19 \times (20 + 2) = (19 \times 20) + (19 \times 2) = 380 + 38 = 418$. Kai's work and total are correct.
- 3) **Choice C is correct.** **(5.NF.7c)** $3 \div \frac{1}{4} = 3 \times 4 = 12$.
- 4) **Choice B is correct.** **(5.MD.1)** 1 m = 100 cm. Multiply: $1.35 \times 100 = 135$ cm.
- 5) **Choice D is correct.** **(5.OA.2)** Both expressions multiply by the same grouped amount, (3 + 2). Since 1,205 is greater than 5, the first product must be greater.
- 6) **Choice C is correct.** **(5.OA.2)** The grouped amount (8 + 2) is the same as 10. That means both sides are 7 times the same amount, so they are equal.
- 7) **Choice B is correct.** **(5.NBT.2)** Total sheets divided by sheets per student: $3,600 \div 100 = 36$ students.
- 8) **Choice A is correct.** **(5.MD.4)** Total volume: $4 \times 3 \times 2 = 24$ cubes. Already placed: 15. Needed: $24 - 15 = 9$ unit cubes.
- 9) **Choice D is correct.** **(5.MD.5)** Total cost: $24.99 + 18.50 = 43.49$ dollars. Change: $50.00 - 43.49 = 6.51$ dollars.
- 10) **Choice A is correct.** **(5.G.2)** Add 2: 0, 2, 4, 6, 8... Add 4: 0, 4, 8, 12, 16... Each term of "add 4" is 2 times "add 2".
- 11) **Choice B is correct.** **(5.NF.2)** $\frac{4}{9}$ is close to $\frac{1}{2}$, and $\frac{1}{12}$ is small. The sum is just a little more than $\frac{1}{2}$, so $\frac{1}{2}$ is the best benchmark estimate.
- 12) **Choice A is correct.** **(5.G.2)** The x-axis is time, so the x-coordinate 12 means 12 seconds. The y-axis is distance, so the y-coordinate 3 means 3 meters. The interpretation matches the axes.
- 13) **Choice D is correct.** **(5.G.4)** A rectangle is a quadrilateral, and its opposite sides are parallel.
- 14) **Choice C is correct.** **(5.NBT.2)** $34 \times 10 = 340$. Multiply by 10 by appending one zero.
- 15) **The correct answer is 2.** **(5.MD.3b)** $30 \div (5 \times 3) = 30 \div 15 = 2$.
- 16) **The correct answer is $\frac{1}{24}$.** **(5.NF.7c)** $\frac{1}{4} \div 6 = \frac{1}{24}$ acre. Each plant gets one of 24 equal parts of an acre.
- 17) **Choice D is correct.** **(5.G.2)** Rule A gives 6, 9, 12, 15 and Rule B gives 1, 3, 5, 7. The next ordered pair is (15, 7).
- 18) **Choices A, B are correct.** **(5.NBT.1)** In 0.666, the left 6 is in the tenths place, the middle 6 is in the hundredths place, and the right 6 is in the thousandths place. A tenth is 10 times a hundredth, and a hundredth is 10 times a thousandth, so A and B are true.
- 19) **Choice D is correct.** **(5.OA.2)** The quotient part is $48 \div 6$, and the product part is 2×3 . The phrase says to subtract the product from the quotient.
- 20) **Choice A is correct.** **(5.NBT.2)** Moving the decimal 1 place right means multiplying by 10.
- 21) **The correct answer is 120.** **(5.MD.5a)** Use the rectangular-prism formula $V = l \times w \times h$. Multiply $8 \times 5 \times 3 = 120$ cubic units.
- 22) **Choice D is correct.** **(5.MD.5)** The base layer has $7 \times 7 = 49$ square units. Divide the volume by the base area: $392 \div 49 = 8$, so the height is 8 centimeters.
- 23) **Choice D is correct.** **(5.NBT.7)** Combine: $42 + 35 = 77$ shaded squares. So $0.42 + 0.35 = 0.77$.
- 24) **Choice C is correct.** **(5.NBT.4)** When the tenths digit is exactly 5, we round up. So 4.5 rounds to 5.
- 25) **The correct answer is 7.** **(5.G.2)** The second number in an ordered pair is the y-coordinate.
- 26) **Choice D is correct.** **(5.NF.2)** $\frac{7}{8} - \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$ of the tank.
- 27) **Choice C is correct.** **(5.MD.5a)** Base area = $6 \times 5 = 30$ in². Height = $240 \div 30 = 8$ inches.
- 28) **Choice D is correct.** **(5.MD.5c)** Volume counts cubic units inside the whole solid. Splitting into non-overlapping prisms lets you add the cubic units from each part.
- 29) **The correct answer is 0.245.** **(5.NBT.2)** Move the decimal point two places left: $24.5 \rightarrow 0.245$.
- 30) **Choice B is correct.** **(5.NF.2)** The number line shows the dot positioned at $\frac{2}{5}$ (two-fifths of the way from 0 to 1).
- 31) **Choice B is correct.** **(5.NF.1)** Add: $\frac{9}{10} + 4\frac{1}{10} = 5$.



Notes From Your Math Architect

Dear Builder of Big Ideas,

◇ Across 4 practice tests, you laid down brick after brick of math skill. The foundation is solid. The walls are strong. The roof is in place. You've built yourself a study sturdy enough to stand any storm test day might bring. ◇

★ **What architects know:** a great building starts with a great plan. You've practiced planning—reading carefully, picking your strategy, and working step by step. That blueprint thinking is what turns hard problems into clear answers. ★

Builder's Inspection Checklist

- **Foundation:** ROCK SOLID! Number sense, fractions, decimals—all in place.
- **Frame:** STRONG! You can break down a problem into clear parts.
- **Walls:** TIGHT! Your work is organized and easy to follow.
- **Roof:** FINISHED! You always answer the question that was asked.

Architect's tip: on test day, build each answer like a small building. Foundation: read the question. Frame: pick the strategy. Walls: do the math. Roof: check the answer. Each piece matters. Each piece is yours.

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

Reza Nazari & Jay Daie
Your Math Architect (Built to Last)

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
Math Skills



Improve
Accuracy
& Speed



Master
Essential
Concepts



Boost
Confidence
on Test Day



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