

4

COMPLETE

Kentucky KSA

Grade

MATH

5

PRACTICE TESTS

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



BUILD STRONG
MATH SKILLS
& TEST READINESS



IMPROVE ACCURACY,
SPEED, AND
PROBLEM SOLVING



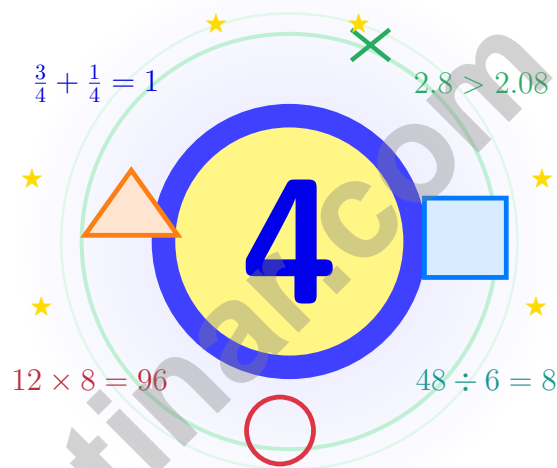
PERFECT FOR
CLASSROOM,
HOME, OR
SELF-STUDY



ALIGNED TO
KENTUCKY
STATE STANDARDS
(KSA)

4 Kentucky KSA Grade 5 Math Practice Tests

A four-test adventure built for steady, brave thinking



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

Jay Daie and Reza Nazari



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Strap In, Kentucky – Four-Test Adventure

Four full tests and a coach's voice on every page

Kentucky Mathematicians, Read This First

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math practice grows like bluegrass – slowly, beautifully, with deep roots that hold up through every season.

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.

Read

Read every word and circle key numbers.

Solve

Solve cleanly so your work tells a story.

Reflect

Reflect on what worked and what wobbled.

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

From Cover to Final Test

A four-step routine that turns practice into real improvement

Step 1: Notice

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

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

Step 2: Practice

Practice one full test in quiet conditions.

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

Step 3: Honest Check

Check honestly without rushing.

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

Step 4: Polish

Polish the rough spots before test number two.

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

A Four-Week Kentucky Mission Map

Week	Mission Focus
Week 1	Take Test 1 and let your math grow deep roots.
Week 2	Take Test 2 and aim careful attention at word problems and clear steps.
Week 3	Take Test 3 to polish fractions, decimals, and conversions.
Week 4	Take Test 4 with steady, kind, focused work.



Scan me

Four Tests, Up Close

What these four practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Bluegrass State for the Kentucky KSA with the patient grace of a Kentucky horse trainer. 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 KSA-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)

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

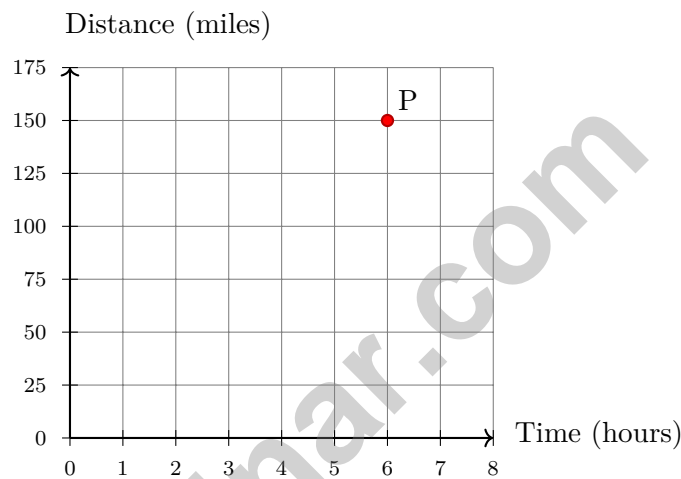
1 day = 24 hours (hr) 1 year = 52 weeks



5) Two patterns are shown using an input-output table. Input: 2, 4, 6, 8. Output: 10, 20, 30, 40. What is the rule?

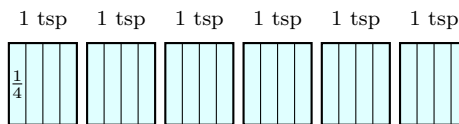
- A. Output = Input +8 C. Output = Input ×4
 B. Output = Input ×5 D. Output = Input +5

6) On a time-distance graph, the x-axis shows time in hours and the y-axis shows distance in miles. A point is plotted on the graph. What does the plotted point represent?



- A. 6 hours, 150 miles C. 150 hours, 150 miles
 B. 150 hours, 6 miles D. 6 hours, 6 miles

7) A recipe calls for $\frac{1}{4}$ -teaspoon portions of salt. How many portions are in 6 teaspoons?



6 teaspoons split into quarter-teaspoon portions

- A. 6 C. 24
 B. 12 D. 30



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1) Evaluate: $15 + 3 \times (7 - 2)$

A. 12

C. 30

B. 20

D. 90

2) Two patterns start at 0. Pattern P adds 3 each time; pattern Q adds 6 each time. List the first four ordered pairs (P, Q) , including the starting values.

A. $(0, 0), (3, 6), (6, 12), (9, 18)$

B. $(0, 0), (3, 3), (6, 6), (9, 9)$

C. $(0, 0), (6, 3), (12, 6), (18, 9)$

D. $(0, 0), (3, 6), (9, 12), (18, 24)$

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1) Compare $12 \times \frac{2}{4}$ to $12 \times \frac{1}{2}$. Which is correct?

A. $12 \times \frac{2}{4} <$ the other

B. Cannot be determined

C. $12 \times \frac{2}{4} >$ the other

D. $12 \times \frac{2}{4} =$ the other

2) A store stacks 3 identical rectangular boxes. Each box measures 6 inches by 4 inches by 3 inches. What is the total volume of all the boxes?

A. 216 cubic inches

B. 72 cubic inches

C. 75 cubic inches

D. 288 cubic inches

3) Compare without calculating: $(6 + 5) + 9$ $(6 + 9) + 5$

A. $>$

B. $<$

C. $=$

D. Cannot tell

4) Find: $32.1 \div 10^2$.

Record your answer in the space provided.

5) Evaluate the expression: $\{(9 + 3) \times 2\} - 4 \div 5$

Record your answer in the space provided.



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

- Choice A is correct.** (KY.5.MD.2) The least value on the line plot is 1 hour, which has 1 X mark.
- Choice B is correct.** (KY.5.MD.4) A cube with 4 cubes along each edge has $4 \times 4 = 16$ cubes in one layer and 4 layers, so it has $16 \times 4 = 64$ unit cubes.
- Choice C is correct.** (KY.5.NF.4) $\frac{2}{5} \times \frac{2}{3} = \frac{2 \times 2}{5 \times 3} = \frac{4}{15}$.
- Choice D is correct.** (KY.5.NF.1) Borrow 1 from 7: $6\frac{12}{10} - 3\frac{7}{10} = 3\frac{5}{10}$. Simplify $\frac{5}{10}$ to $\frac{1}{2}$, so the difference is $3\frac{1}{2}$.
- Choice B is correct.** (KY.5.G.2) Multiplying input by 5 gives output: $2 \times 5 = 10$, $4 \times 5 = 20$, $6 \times 5 = 30$, $8 \times 5 = 40$.
- Choice A is correct.** (KY.5.G.2) The plotted point is at 6 on the time axis and 150 on the distance axis. It represents 6 hours and 150 miles.
- Choice C is correct.** (KY.5.NF.7) $6 \div \frac{1}{4} = 6 \times 4 = 24$. There are 24 portions.
- Choice A is correct.** (KY.5.NF.7) $\frac{1}{4} \div 3 = \frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$.
- Choice B is correct.** (KY.5.MD.5) The overlap region contains 3 shaded squares out of 20 total, so the area is $\frac{3}{20}$.
- Choice D is correct.** (KY.5.G.1) An ordered pair (x, y) shows the location of a point. The x-coordinate (3) tells how far right from the origin, and the y-coordinate (7) tells how far up. The point is at (3, 7).
- The correct answer is 5 polygons.** (KY.5.G.4) $12 - 7 = 5$ polygons are outside the quadrilateral part of the diagram.
- Choice C is correct.** (KY.5.G.2) Point C is at (5, 8). Moving 4 units down subtracts 4 from the y-coordinate: $8 - 4 = 4$. The x-coordinate stays 5. So point D is at (5, 4).
- Choice B is correct.** (KY.5.NBT.1) The number 12,345 breaks down as: 12 (ones and tens), 0.3 (tenths), 0.04 (hundredths), 0.005 (thousandths).
- Choice A is correct.** (KY.5.NBT.2) $9 \times 100 = 900$ (two zeros) is true, but $9 \times 1000 = 9000$ (three zeros), not 900.
- Choice A is correct.** (KY.5.NF.1) Together eaten: $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$. Remaining: $1 - \frac{5}{8} = \frac{3}{8}$.
- Choice D is correct.** (KY.5.NF.1) Common denominator for 3 and 2 is 6. $\frac{1}{3} = \frac{2}{6}$ and $\frac{1}{2} = \frac{3}{6}$.
- The correct answer is 3.** (KY.5.G.2) For nonzero terms, $9 \div 3 = 3$, $18 \div 6 = 3$, and $27 \div 9 = 3$.
- Choice B is correct.** (KY.5.MD.1) Each foot has 12 inches. $25 \times 12 = 300$, so 25 feet equals 300 inches.
- Choice B is correct.** (KY.5.NBT.2) Divide the total by the number of vials: $3,600 \div 1,000 = 3.6$ mL per vial.
- Choice C is correct.** (KY.5.NF.3) Each whole contains 4 pieces of size $\frac{1}{4}$. With 2 wholes, there are $2 \times 4 = 8$ pieces.
- Choice A is correct.** (KY.5.MD.4) One prism: $4 \times 5 \times 3 = 60 \text{ in}^3$. Three prisms: $60 \times 3 = 180 \text{ in}^3$.
- Choices A, B are correct.** (KY.5.G.2) The second coordinate is 3 times the first coordinate, so (2, 6) is on the pattern. C would need second coordinate 9, and D ignores the up-3 rule.
- Choice D is correct.** (KY.5.NF.1) The numerator increased from 2 to 8 (multiply by 4). Multiply the denominator by 4: $3 \times 4 = 12$.
- Choice D is correct.** (KY.5.NF.6) Area = $\frac{2}{3} \times \frac{1}{2} = \frac{2}{6}$, which simplifies to $\frac{1}{3} \text{ m}^2$.
- Choice B is correct.** (KY.5.MD.1) From meters to mm: $\times 10 \times 10 \times 10 = \times 1000$. So $6 \times 1000 = 6000$ mm.
- Choice C is correct.** (KY.5.OA.1) The parentheses give $8 - 5 = 3$. Then $9 \times 3 = 27$, and $7 + 27 - 4 = 30$.
- Choice D is correct.** (KY.5.MD.3) $V = \text{base area} \times \text{height} = 10 \times 6 = 60$ cubic units.
- Choice C is correct.** (KY.5.OA.2) Each group has $(6 + 3) = 9$ boxes; 4 groups total $4 \times 9 = 36$ boxes.
- Choice D is correct.** (KY.5.MD.5) Use the rectangular-prism volume formula: $8 \times 5 \times 4 = 160$. So the volume is 160 cubic meters.
- The correct answer is 39.2.** (KY.5.MD.5) Choose the operation from the story, then keep the unit with the answer. $5.6 \times 7 = 39.2$ km. This confirms the answer.
- Choice D is correct.** (KY.5.NBT.3) 42 out of 100 squares = $\frac{42}{100} = 0.42$, read as “forty-two hundredths”.
- The correct answer is $2\frac{1}{4}$ ft.** (KY.5.NF.2) Sum with LCD 8: $\frac{3}{8} + \frac{4}{8} + \frac{5}{8} + \frac{6}{8} = \frac{18}{8} = \frac{9}{4} = 2\frac{1}{4}$ ft. Accept equivalent forms.



Trail Guide's Final Briefing

Brave Trail-Walker,

◇ You've walked all 4 miles of the practice trail. You've seen smooth paths, steep climbs, narrow passes, and clearings. Every step taught you something about yourself and your math skills. ◇

★ **What trail guides know:** the most important thing is to keep moving. Slow steps still get you where you need to go. You've practiced that exact pace, and now your stride is steady. ★

Trail Survey Report

- **Route Knowledge:** STRONG! You recognize different types of math problems.
- **Pacing:** STEADY! You don't rush, and you don't drag.
- **Pack Loaded:** READY! You have all the strategies you need.
- **Trail Confidence:** HIGH! You trust your training.

Guide's tip: on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route you know. The summit is just one steady walk away.

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 Trail Guide (Keep Walking)

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.



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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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and practice materials!



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