

$\frac{2}{3}$

0,25



%

FULL-LENGTH

Kentucky

$\frac{2}{4}$

$7 \times 8 =$



7×8

$56 \div 7$

$(a+b)^2$

3

Aligned to State Standards

KSA

MATH

Grade

5

PRACTICE TESTS

Complete State Standards Review
with Answer Key and
Essential Math Skills Practice



3 Full-Length Practice Tests
Aligned to State Standards



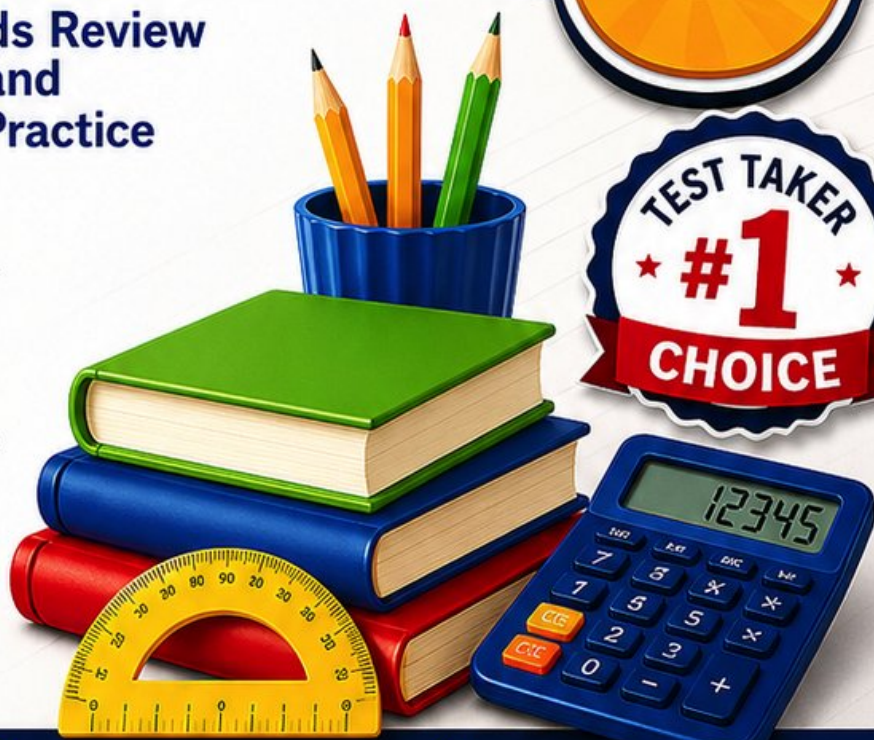
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



Detailed Answer Key
Step-by-Step Explanations
for All Questions



WRITTEN FOR
GRADE 5 STUDENTS



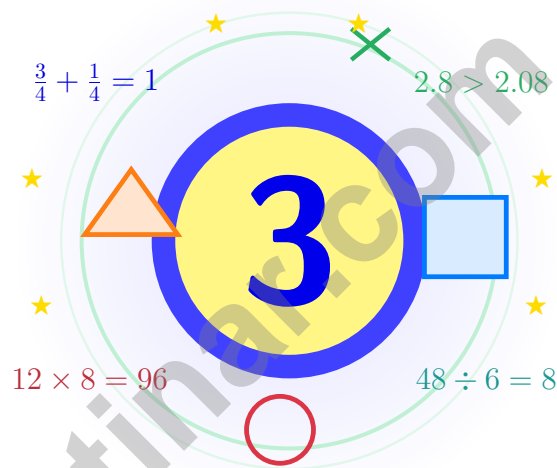
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 Kentucky KSA Grade 5 Math Practice Tests

Bluegrass math for steady, curious thinkers



Three full tests, a friendly quick review, smart strategy pages, and student-tested support that help Grade 5 mathematicians from The Bluegrass State walk in ready to think.

Jay Daie and Reza Nazari



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Open the Door, Kentucky – Math Awaits

Bluegrass math for steady, curious thinkers

An Invitation to Grade 5 in Kentucky

Math practice grows like bluegrass – slowly, beautifully, with deep roots that hold up through every season.

Some questions will feel easy from the very first read. Others will ask you to pause, sketch, estimate, or try again. That is not a problem. That is practice doing exactly what it should do. Every honest attempt grows your math brain a little stronger.

Read

Read every word twice and underline what is being asked.

Solve

Choose the cleanest method and show your steps.

Reflect

Look back to find what worked and what to fix.

A Kentucky promise to yourself: I will let my work grow deep roots through honest practice and steady reflection.

A Simple Path Through This Book

A simple game plan that turns practice into real progress

Step 1: Warm Up

Start with the quick review pages.
Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Run

Take one full test in a calm, quiet place.
Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Review

Score your work and circle missed questions.
Circle missed questions, sort out what went sideways, and notice which skills are calling for more attention.

Step 4: Repeat

Rework the missed questions before the next test.
Read the explanation, fix the work, and carry that lesson forward into the next test.

Practice Plan for Kentucky Grade 5

Week 1	Open with Test 1 and treat it like a snapshot, not a final grade.
Week 2	Use Test 2 to attack the skills that surprised you in Test 1.
Week 3	Bring Test 3 home with calm pacing and careful checking.



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Inside the Practice Tests

What these 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 getting answers right. Students are practicing how to read with care, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every single day.

Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, ruling out weak choices, and checking for reasonableness can save both time and points.

Constructed-Response Questions

Students show their steps, explain a method, or back up an answer with clear math. Clean reasoning matters because it shows how the answer was actually 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
- line plots, tables, numerical patterns, and coordinate points
- geometry and multi-step real-world problems

What strong work looks like on the KSA: the math is correct, the steps are readable, the labels and units match the problem, and the final answer truly answers the question being asked.



Table of Contents

★ Practice Test 1	_____	17
★ Practice Test 2	_____	30
★ Practice Test 3	_____	45
Practice Test Answer Keys	_____	60
Practice Test Answers and Explanations	_____	63

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) 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) A student says: "Multiplying a positive number by $\frac{9}{10}$ makes it smaller." Is this always true, sometimes true, or never true?
- A. Cannot be determined C. Never true
 B. Sometimes true D. Always true
- 3) Pattern: 7, 14, 21, 28, ... Which is NOT a term?
- A. 49 C. 75
 B. 63 D. 84
- 4) What is the x-coordinate of (5, 2)?

Record your answer in the space provided.

- 5) A student claims: "To subtract $5\frac{1}{2} - 3\frac{3}{4}$, I first convert to fourths: $5\frac{2}{4} - 3\frac{3}{4}$." Is this a correct first step?
- A. Yes, fourths are the least common denominator C. No, must use halves as the common denominator
 B. No, the conversions are wrong D. Cannot convert; denominators are too different

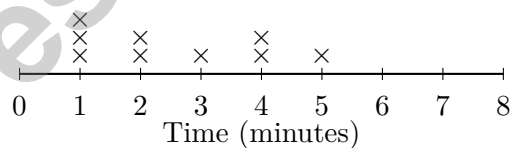


6) Which arrow correctly shows 0.7×100 ?



- A. 0.007
- B. 7
- C. 70
- D. 700
- 7) How many quarts are in 2 gallons?
- A. 4 quarts
- B. 6 quarts
- C. 8 quarts
- D. 10 quarts
- 8) 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)
- 9) The line plot shows the time (in minutes) students spent on math homework:

Homework Time (Minutes)



How many students spent 2 minutes on math homework?

- A. 1 student
- B. 2 students
- C. 3 students
- D. 4 students



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1) What power of 10 is needed to make $0.025 \times ? = 2.5$?

- A. 10
 B. 100

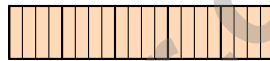
- C. 1,000
 D. 10,000

2) A step-shaped solid is decomposed into three non-overlapping rectangular prisms. The prisms measure 8 centimeters by 3 centimeters by 5 centimeters, 6 centimeters by 2 centimeters by 4 centimeters, and 5 centimeters by 2 centimeters by 1 centimeter. What is the total volume?

- A. 168 cubic centimeters
 B. 58 cubic centimeters

- C. 130 cubic centimeters
 D. 178 cubic centimeters

3) A farmer fills bags with apples. Each bag holds $\frac{1}{4}$ of a crate. How many bags can the farmer fill from 5 full crates of apples?



- A. 5 bags
 B. 9 bags

- C. 16 bags
 D. 20 bags

4) Which expression is closest to $\frac{1}{2}$?

- A. $\frac{1}{6} + \frac{1}{8}$
 B. $\frac{1}{3} + \frac{1}{6}$

- C. $\frac{1}{10} + \frac{1}{12}$
 D. $\frac{3}{4} + \frac{1}{5}$

5) Compare without calculating: $72 \div 9$ $72 \div 8$

- A. $>$
 B. Cannot tell

- C. $=$
 D. $<$



Grade 5 Mathematics Reference Materials

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1) Where does the product land when 9 is scaled by $\frac{2}{3}$?

A. At 3

C. At 9

B. At 6

D. At 12

2) A town saves \$1000 per month from its budget. How much is saved in 16 months?

Monthly Savings

$\boxed{\$1000/\text{month}}$ \longrightarrow $\times 16$ months

A. \$16000

C. \$160000

B. \$17000

D. \$1600

3) Which dimensions give a volume of 240 in^3 ?

A

$$5 \times 6 \times 7$$

B

$$4 \times 6 \times 10$$

C

$$3 \times 7 \times 10$$

D

$$4 \times 8 \times 7$$

A. First

C. Third

B. Fourth

D. Second



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 B is correct.** (KY.5.OA.2) Carol is comparing copies of the same amount, $(250 + 75)$. Two copies are more than one copy, but less than three copies.
- Choice D is correct.** (KY.5.NF.5) Since $\frac{9}{10} < 1$, any positive number multiplied by $\frac{9}{10}$ always becomes smaller.
- Choice C is correct.** (KY.5.OA.3) Multiples of 7: 49, 63, 84 are multiples; 75 is not.
- The correct answer is 5.** (KY.5.G.2) The first number in an ordered pair is the x-coordinate.
- Choice A is correct.** (KY.5.NF.1) $5\frac{1}{2} = 5\frac{2}{4}$, and $3\frac{3}{4}$ is already in fourths. Then regroup: $4\frac{6}{4} - 3\frac{3}{4} = 1\frac{3}{4}$.
- Choice C is correct.** (KY.5.NBT.2) Multiplying by 100 moves the decimal two places right: $0.7 \rightarrow 7 \rightarrow 70$.
- Choice C is correct.** (KY.5.MD.1) Since 4 quarts = 1 gallon, multiply 2 by 4: $2 \times 4 = 8$ quarts.
- Choice A is correct.** (KY.5.G.2) Check each input: double it, then add 3. For example, input 2 gives $2 \times 2 + 3 = 7$.
- Choice B is correct.** (KY.5.MD.2) Count the X marks above 2 minutes. There are 2 X marks, so 2 students spent 2 minutes on math homework.
- Choice C is correct.** (KY.5.MD.4) Volume = $24 \times 18 \times 20 = 8640$ cubic inches. The answer is written as 8,640 cubic inches.
- Choice C is correct.** (KY.5.OA.1) Each parenthesis becomes one number: $5 + 3 = 8$ and $7 - 4 = 3$. Then multiply those results: $8 \times 3 = 24$.
- Choice D is correct.** (KY.5.NBT.4) Align decimals: $3.40 + 0.27$. Hundredths: $0 + 7 = 7$; tenths: $4 + 2 = 6$; ones: $3 + 0 = 3$. Sum is 3.67.
- Choice D is correct.** (KY.5.NF.4) $9 \times \frac{2}{3} = \frac{18}{3} = 6$.
- Choice A is correct.** (KY.5.NBT.6) $1,368 \approx 1,400$ and $34 \approx 35$. So $1,368 \div 34$ rounds to $1,400 \div 35$.
- Choice A is correct.** (KY.5.NF.4) $\frac{2}{3} \times \frac{7}{8} = \frac{14}{24} = \frac{7}{12}$ yard.
- Choice C is correct.** (KY.5.NBT.2) $0.072 \times 1000 = 72$ (move decimal 3 places right).
- Choice C is correct.** (KY.5.NF.2) Add the hours shown by the marks: $3(\frac{1}{2}) + 4(\frac{3}{4}) + 3(1) + 2(1\frac{1}{4}) = 10$ hours.
- Choice A is correct.** (KY.5.G.3) Figure A is a triangle with no parallel sides and no right angle. Figures B, C, and D do not match both conditions.
- Choices A, B are correct.** (KY.5.NBT.2) $3,000 \div 100$ and $300 \div 10$ both equal 30. C equals 300, and D equals 3.
- Choice D is correct.** (KY.5.NBT.2) $10^2 = 100$, so dividing by 10^2 means dividing by 100.
- Choice B is correct.** (KY.5.NF.3) $\frac{5}{6} + \frac{1}{3} = \frac{5}{6} + \frac{2}{6} = \frac{7}{6}$ yards.
- Choice C is correct.** (KY.5.NBT.2) Each factor has four zeros. Multiplying powers of 10 combines those zeros, giving a product with 8 zeros.
- Choice C is correct.** (KY.5.NBT.2) Each batch uses 2.5 cups, so multiply by the number of batches: $2.5 \times 6 = 15$. The total is 15 cups.
- The correct answer is $\frac{1}{8}$.** (KY.5.NF.7) $\frac{1}{4} \div 2 = \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.
- The correct answer is 216.** (KY.5.MD.3) One layer has $6 \times 6 = 36$ unit cubes. With 6 layers, the cube has $36 \times 6 = 216$ unit cubes.
- Choice D is correct.** (KY.5.NF.7) $8 \div \frac{1}{2} = 8 \times 2 = 16$. It will take 16 nights.
- Choice B is correct.** (KY.5.NF.1) LCM(10,3) = 30. $\frac{4}{10} = \frac{12}{30}$ and $\frac{1}{3} = \frac{10}{30}$. $\frac{12}{30} + \frac{10}{30} = \frac{22}{30} = \frac{11}{15}$.
- Choice B is correct.** (KY.5.NF.1) Common denominator is 10: $1\frac{5}{10} + 4\frac{2}{10} = 5\frac{7}{10}$.
- Choice A is correct.** (KY.5.MD.4) Each layer has $3 \times 3 = 9$ unit cubes. Three layers have 27 unit cubes. Removing one full layer removes 9 unit cubes, so $27 - 9 = 18$ unit cubes remain.
- Choice D is correct.** (KY.5.NBT.4) The tenths digit is 2. The hundredths digit is 8. Since $8 \geq 5$, round tenths up: $2 \rightarrow 3$, giving 31.3.
- Choice C is correct.** (KY.5.NBT.2) Dividing by 100: $26.3 \div 100 = 0.263$ oz per customer.
- Choice A is correct.** (KY.5.NBT.3) Compare place by place: 0.06 (6 hundredths) $<$ 0.16 (16 hundredths) $<$ 0.6 (60 hundredths) $<$ 0.66 (66 hundredths).



Captain of Your Own Math Plane,

◇ 3 practice tests behind you. That's many flights logged in your math airplane. You've handled clear weather, turbulence, tricky landings, and long routes. You're a real pilot now. ◇

★ **Pilots know:** a good pre-flight check makes for a good flight. Before each test problem, do your check: read the question, look at the numbers, pick a strategy. That short check makes the rest of the flight smooth. ★

Flight Crew Skills

- **Pre-flight Check:** CONSISTENT! You read questions carefully.
- **Navigation:** STRONG! You pick a clear strategy.
- **Steady Flight:** STEADY! You stay calm through long tests.
- **Landing:** SHARP! You always check your final answer.

Pilot's tip: on test day, don't fly the whole flight in your head before takeoff. Just take off. Then handle one problem at a time. Trust your training. You've earned your wings.

If you want to share a proud moment or ask a question, please email me at jay@testinar.com. I'd love to hear from you!

Jay Daie

Your Math Pilot (Clear Skies Ahead)

Build Skills. Boost Confidence. Excel on the Grade 5 Math Test.

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Realistic test format to build familiarity and confidence.



Covers All Essential Math Topics

Fractions, decimals, geometry, measurement, data, number operations, and more.



Build Strong Math Skills

Strengthen understanding and problem-solving through varied question types.



Detailed Answer Key

Step-by-step explanations to help your child learn from mistakes and improve.



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Use score trackers to identify strengths and focus on areas that need more practice.



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Consistent practice builds stronger skills, sharper thinking, and test-day success.

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- ✓ Achieve your best score!



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