

# 4

# Kentucky

# KSA

## GRADE 4

# MATH

## PRACTICE TESTS



5 FULL-LENGTH  
PRACTICE TESTS



Standards-Aligned Review with  
Mixed Practice and Answer Key



STANDARDS-ALIGNED  
REVIEW



$$4 \times 7 = 28$$

$$36 \div 9 = 4$$



MIXED PRACTICE  
QUESTIONS



ANSWER KEY  
INCLUDED

$$\begin{array}{r} 125 \\ + 87 \\ \hline 212 \end{array}$$



# 4 Kentucky KSA Grade 4 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Four focused 30-question missions for Grade 4 math: number facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, Kentucky Math Explorer!

Four steady rounds on the Bluegrass State math route

This book gives you four full Grade 4 practice tests for KSA. Each round uses bluegrass hills, derby timing, and thoughtful math choices to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## Kentucky Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

# How to Use This Book

A ten-session routine for Kentucky KSA review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Bluegrass State math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Four tests, 120 questions, and a full KSA review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 2–4	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 2–4	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

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1) What is the area of a rectangle that is 10 inches long and 3 inches wide?

A. 13 sq in

C. 30 sq in

B. 26 sq in

D. 33 sq in

2) Ms. Kumar has 1,638 pencils to share equally among 7 students. How many pencils does each student receive?

3) A water jug contains 3 liters. How many milliliters is this?

A. 300

C. 30,000

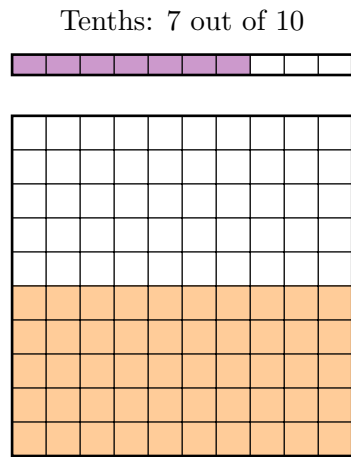
B. 3,000

D. 300,000



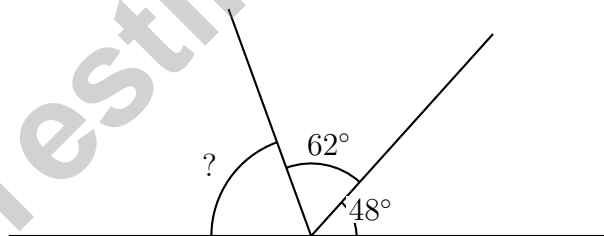
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4) Compare using a tenths-hundredths model. Which is true?



- A.  $\frac{7}{10} > \frac{50}{100}$ 
 C.  $\frac{7}{10} = \frac{50}{100}$   
 B.  $\frac{7}{10} < \frac{50}{100}$ 
 D. Cannot be compared

5) A straight angle of  $180^\circ$  is divided by two rays into three parts measuring  $48^\circ$ ,  $62^\circ$ , and another unknown part. What is the measure of the unknown part?



- A.  $110^\circ$ 
 C.  $14^\circ$   
 B.  $70^\circ$ 
 D.  $90^\circ$



6) Which is a multiple of  $\frac{2}{8}$ ?

- A.  $\frac{4}{8}$   
 B.  $\frac{3}{8}$

- C.  $\frac{5}{8}$   
 D.  $\frac{1}{8}$

7) A store has 96 ounces of dried apples to pack into bags of 8 ounces each. How many bags are needed?

- A. 8 bags  
 B. 12 bags

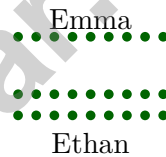
- C. 88 bags  
 D. 104 bags

8) Eli has  $2\frac{4}{10}$  meters of fabric. He buys  $3\frac{5}{10}$  more meters. How much fabric does he have now?

- A.  $5\frac{9}{10}$  meters  
 B. 6 meters

- C.  $5\frac{8}{10}$  meters  
 D.  $6\frac{1}{10}$  meters

9)



Emma has 9 colored pencils. Ethan has 2 times as many colored pencils as Emma. How many colored pencils does Ethan have?

- A. 11  
 B. 16

- C. 18  
 D. 20



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- 1) Which statement about a square and a regular hexagon is true?
- A. Both have 4 lines of symmetry
- B. Both have 6 lines of symmetry
- C. They have different numbers of lines of symmetry
- D. A hexagon has fewer lines than a square
- 2) A juice bottle holds  $\frac{4}{5}$  cup. How much juice do 3 bottles hold?
- A.  $\frac{4}{15}$  cups
- B.  $\frac{7}{5}$  cups
- C.  $\frac{12}{5}$  cups or  $2\frac{2}{5}$  cups
- D.  $\frac{3}{5}$  cups
- 3) What is  $2\frac{5}{8} + 1\frac{3}{8}$ ?
- A.  $3\frac{6}{8}$
- B. 4
- C.  $3\frac{7}{8}$
- D.  $2\frac{8}{8}$
- 4) In the number 2,222, which 2 has the greatest value?
- A. The 2 in the ones place
- B. The 2 in the tens place
- C. The 2 in the hundreds place
- D. The 2 in the thousands place
- 5) Which pair are both factors of 36?
- A. 4 and 8
- B. 6 and 7
- C. 6 and 9
- D. 8 and 9



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6) A pie chart shows sections with angles of  $90^\circ$ ,  $80^\circ$ ,  $60^\circ$ , and  $50^\circ$ . What is the total angle measure of these four sections?

- A.  $180^\circ$                        C.  $280^\circ$   
 B.  $230^\circ$                        D.  $360^\circ$

7) Which number is the smallest?

- A. 0.88                       C. 0.80  
 B. 0.08                       D. 0.82

8) What is  $29 \times 12$ ?

- A. 406                       C. 464  
 B. 522                       D. 348

Kilometers to Meters		

9) km: 1 m: 1,000 km: 7 m: ?

Using the chart, if 1 kilometer = 1,000 meters, then 7 kilometers = ? meters.

- A. 700 m                       C. 70,000 m  
 B. 7,000 m                       D. 700,000 m

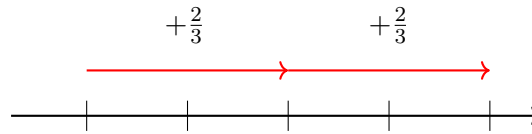
10) Complete the sequence using the pattern shown in the table:

Term	1	2	3	4
Value	9	12	15	?

- A. 16                       C. 18  
 B. 17                       D. 20



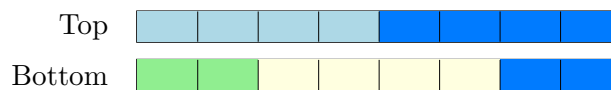
- 1) A number line shows hops from 0 to  $\frac{2}{3}$ , then another hop to  $\frac{4}{3}$ . What operation does this show?



- A.  $\frac{2}{3} + \frac{2}{3}$ 
 C.  $\frac{3}{3} - \frac{1}{3}$   
 B.  $\frac{1}{3} + \frac{1}{3}$ 
 D.  $\frac{4}{3} - \frac{1}{3}$
- 2) Leo reads 2 books. His sister reads 5 times as many books as Leo. How many books does his sister read?
- A. 3
  C. 5  
 B. 7
  D. 10
- 3) A shape has the following attributes: four sides, four equal sides, and no right angles. Which shape could it be?

- A. Trapezoid
  C. Rhombus  
 B. Rectangle
  D. Triangle

- 4) A student draws two bars showing  $\frac{8}{8}$ :



Which decomposition does the top bar show?

- A.  $\frac{4}{8} + \frac{4}{8}$ 
 C.  $\frac{1}{8} + \frac{7}{8}$   
 B.  $\frac{2}{8} + \frac{2}{8} + \frac{2}{8} + \frac{2}{8}$ 
 D.  $\frac{3}{8} + \frac{5}{8}$



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5) Mia says  $\frac{5}{100} = 0.5$ . Is this correct?

A. Yes, both equal 0.5

C. No,  $\frac{5}{100} = 5.0$

B. No,  $\frac{5}{100} = 0.05$

D. No,  $\frac{5}{100} = 0.005$

6) A recipe for cookies uses  $\frac{2}{5}$  cup of chocolate chips. If you triple the recipe, how many cups of chocolate chips do you need?

7) Which fraction is NOT equal to  $\frac{10}{100}$ ?

A.  $\frac{1}{10}$

C.  $\frac{20}{200}$

B.  $\frac{10}{10}$

D.  $\frac{5}{50}$

8) Look at the place-value table below.

Tenths	Hundredths	Decimal
6	0	0.60
6	2	?

What decimal has 6 tenths and 2 hundredths?

A. 0.26

C. 0.206

B. 0.62

D. 6.02



## Practice Test Answer Keys

**How to use this section with a Grade 4 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (KY.4.MD.3) Area = length  $\times$  width =  $10 \times 3 = 30$  sq in.
- 2) **The correct answer is 234.** (KY.4.NBT.6) Use long division:  $16 \div 7 = 2$  r2, bring down the 3 to get  $23 \div 7 = 3$  r2, bring down the 8 to get  $28 \div 7 = 4$ . Each student gets **234** pencils.
- 3) **Choice B is correct.** (KY.4.MD.1) Since 1 liter = 1,000 milliliters, multiply:  $3 \times 1,000 = 3,000$  mL. The answer is **3,000** mL.
- 4) **Choice A is correct.** (KY.4.NF.5) The tenths bar shows 7 tenths =  $\frac{70}{100}$ . The hundredths grid shows 50 hundredths. Comparing:  $\frac{70}{100} > \frac{50}{100}$ .
- 5) **Choice B is correct.** (KY.4.MD.7) The diagram shows a straight angle divided into three parts. Add the two known ones:  $48^\circ + 62^\circ = 110^\circ$ . Then subtract:  $180^\circ - 110^\circ = 70^\circ$ .
- 6) **Choice A is correct.** (KY.4.NF.4) Since  $\frac{4}{8} = 2 \times \frac{2}{8}$ , it's a multiple of  $\frac{2}{8}$ .
- 7) **Choice B is correct.** (KY.4.MD.2) There are 96 ounces of dried apples. Each bag holds 8 ounces. Divide:  $96 \div 8 = 12$  bags. He needs **12** bags.
- 8) **Choice A is correct.** (KY.4.NF.3) Add the wholes:  $2 + 3 = 5$ . Add the fractions:  $\frac{4}{10} + \frac{5}{10} = \frac{9}{10}$ . The total is  **$5\frac{9}{10}$**  meters.
- 9) **Choice C is correct.** (KY.4.OA.2) Ethan's group has 2 rows of 9 pencils—"2 times as many." Multiply:  $2 \times 9 = 18$  colored pencils.
- 10) **The correct answer is  $\frac{17}{6}$ .** (KY.4.NF.3) Two wholes need  $2 \times 6 = 12$  sixths. Add the  $\frac{5}{6}$  part:  $12 + 5 = 17$ , so  $2\frac{5}{6} = \frac{17}{6}$  ✓.
- 11) **Choice C is correct.** (KY.4.MD.5) The two rays forming an angle are called the sides of the angle.
- 12) **Choice C is correct.** (KY.4.NBT.3) For 7,249: tens digit is  $4 < 5$ , round DOWN to 7,200 ✓. For 7,251: tens digit is  $5 \geq 5$ , round UP to 7,300 ✓. A small change (two digits) flips the rounding!
- 13) **Choice A is correct.** (KY.4.NF.1) All three simplify to  $\frac{1}{2}$ :  $\frac{2}{4} = \frac{1}{2}$ ,  $\frac{3}{6} = \frac{1}{2}$ ,  $\frac{5}{10} = \frac{1}{2}$ . They're all equal!
- 14) **The correct answer is 288.** (KY.4.NBT.5) This is a word problem asking for the total. Calculate:  $24 \times 12 = 24 \times (10 + 2) = 240 + 48 = 288$  people.
- 15) **The correct answer is A, C.** (KY.4.NF.4) A:  $4 \times \frac{3}{5} = \frac{4 \times 3}{5} = \frac{12}{5}$  ✓. C:  $3 \times \frac{4}{5} = \frac{3 \times 4}{5} = \frac{12}{5}$  ✓. B:  $6 \times \frac{2}{3} = \frac{12}{3} = 4$  (not  $\frac{12}{5}$ ). D:  $2 \times \frac{1}{5} = \frac{2}{5}$  (not  $\frac{12}{5}$ ). E:  $3 \times \frac{2}{5} = \frac{6}{5}$  (not  $\frac{12}{5}$ ). The answers are **A and C**.
- 16) **Choice C is correct.** (KY.4.MD.6) The ray points to the  $155^\circ$  mark, which is very close to the  $180^\circ$  straight angle. Since  $155^\circ$  is between  $90^\circ$  and  $180^\circ$ , it's obtuse. The answer is **155** degrees.
- 17) **Choice A is correct.** (KY.4.NBT.4) This word problem asks us to find how many are left, so we subtract.  $8,234 - 2,456 = 5,778$  stickers.
- 18) **Choice C is correct.** (KY.4.NF.4) Tripling means we multiply by 3. Since each part is  $\frac{1}{4}$  cup, we get  $3 \times \frac{1}{4} = \frac{3}{4}$  cup.
- 19) **Choice C is correct.** (KY.4.NF.1) Bars A and B show the same shaded length:  $\frac{1}{2} = \frac{2}{4}$  (multiply numerator and denominator by 2). Bar C shows  $\frac{2}{6}$ , which is smaller—not equivalent.
- 20) **Choice C is correct.** (KY.4.MD.4) The smallest measurement is  $\frac{2}{8}$  and the largest is  $\frac{6}{8}$ . The range is  $\frac{6}{8} - \frac{2}{8} = \frac{4}{8}$ .
- 21) **Choice A is correct.** (KY.4.NF.5) 0.80 has 8 tenths, while 0.08 has 0 tenths (just 8 hundredths). Since 8 tenths  $>$  0 tenths,  $0.80 > 0.08$ . Socks cost more.
- 22) **Choice C is correct.** (KY.4.NBT.6) Two steps! Step 1: find how many pens are in the packs.  $5 \times 6 = 30$ . Step 2: add the old pens:  $30 + 4 = 34$  pens altogether.
- 23) **Choice A is correct.** (KY.4.NF.3) Both pieces are used out of 2 equal pieces, which is  $\frac{2}{2}$ . As a sum of unit fractions:  $\frac{1}{2} + \frac{1}{2}$ .
- 24) **Choice C is correct.** (KY.4.G.1) An equilateral triangle has three equal sides and three equal angles, so it's balanced three ways. Each line goes from a corner to the middle of the opposite side. The answer is **3** lines of symmetry.
- 25) **Choice D is correct.** (KY.4.OA.1) "2 times as long" is a multiplication signal. The length is  $7 \times 2 = 14$  feet.
- 26) **Choice A is correct.** (KY.4.NF.3) Noah walked before and after lunch. Step 1: Add the distances:  $\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$  miles, which is more than one mile. Step 2: Find how much more:  $1\frac{3}{6} - 1 = \frac{3}{6} = \frac{1}{2}$  mile more than one mile.



A Quiet Word From Your Mentor

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Hi, Thoughtful Student,

◇ I want to take a moment to tell you something true: you did excellent work. 4 practice tests is a real promise that you kept to yourself. That matters. ◇

★ **Mentors notice:** growth is quiet. It doesn't shout. But it shows up in how you handle a problem today vs how you did weeks ago. That growth is your real prize. ★

**What I See in You**

- **Hard Work:** You don't quit when problems are tough.
- **Curiosity:** You wonder why and how.
- **Kindness:** You are patient with yourself.
- **Brave Heart:** You try things that scare you.

**Mentor's note:** on test day, treat yourself like you would a friend. Be kind. Be patient. Be encouraging. The skills are inside you!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Mentor

# PRACTICE TODAY, SUCCEED TOMORROW!

This **Grade 4 Math Practice Tests** book is the perfect tool to help students build strong math skills, master key concepts, and gain the confidence they need to excel.

With 4 full-length practice tests, a variety of question types, and detailed answer explanations, students get the review and practice they need to strengthen problem-solving skills and achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Confidence Building

★ **CONFIDENCE TODAY.  
SUCCESS TOMORROW!**

## WHAT STUDENTS WILL GAIN



### Stronger Math Skills

Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Test Confidence

Become familiar with test-style questions and formats.



### Track Progress

Measure growth across multiple practice tests.



### Prepare for Success

Build the confidence needed to do your best on test day.

## TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Decimals
- ✓ Geometry & Measurement
- ✓ Data, Graphs & Line Plots
- ✓ Perimeter & Area
- ✓ Patterns & Algebraic Thinking
- ✓ Word Problems
- ✓ And More!



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