

# 6

# Kentucky

## KSA

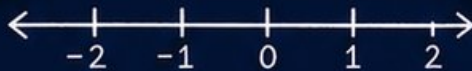
# GRADE 5 MATH

## PRACTICE TESTS

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



$$A = \frac{1}{2}bh$$



$$5^2 = 25$$



**6 FULL-LENGTH  
PRACTICE TESTS**

Realistic style questions



**STANDARDS-BASED  
PRACTICE**

Covers all Grade 5  
Math standards



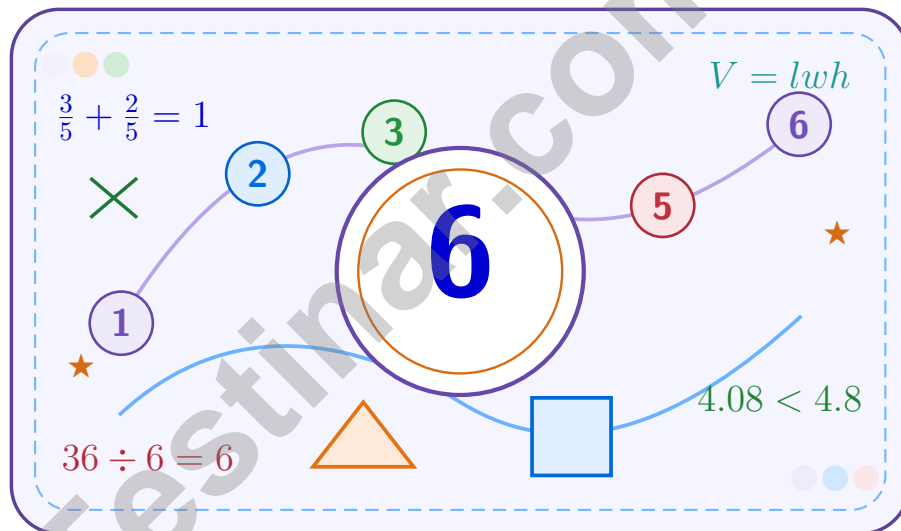
**BUILD CONFIDENCE.  
IMPROVE SCORES.**

Target weak areas and  
achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

# 6 Kentucky KSA 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
<b>Week 1</b>	Take Test 1 and review any place-value or operation slips.
<b>Week 2</b>	Take Test 2 and focus on showing neat, easy-to-read work.
<b>Week 3</b>	Take Test 3 and give extra time to fractions or decimals if needed.
<b>Week 4</b>	Take Test 4 and slow down on word problems and units.
<b>Week 5</b>	Take Test 5 and compare your score and habits with earlier rounds.
<b>Week 6</b>	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 Kentucky KSA. 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

★ Practice Test 1	_____	14
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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

#### Customary

1 pound (lb) = 16 ounces (oz)

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1 kilogram (kg) = 1,000 grams (g)

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### TIME

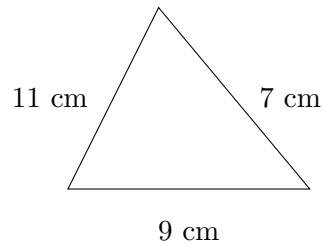
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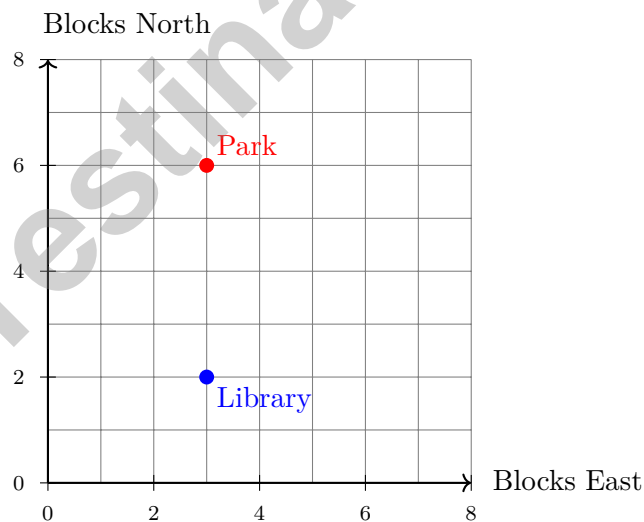
1 day = 24 hours (hr)    1 year = 52 weeks



- 1) A triangle has sides of 9 cm, 11 cm, and 7 cm. What can you say based on its side lengths?



- A. Isosceles; two sides are equal
- B. Scalene; all sides are different
- C. Equilateral; all sides are equal
- D. Right; one angle is  $90^\circ$
- 2) What is  $480 \div 10$ ?
- A. 48
- B. 4,800
- C. 4.8
- D. 0.48
- 3) A map uses a coordinate grid where each unit represents 1 block. The library is at (3, 2) and the park is at (3, 6). How many blocks apart are they?



- A. 2 blocks
- B. 3 blocks
- C. 4 blocks
- D. 6 blocks



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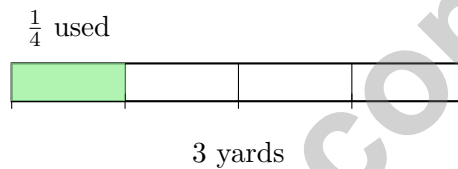
1) What is the volume of a rectangular box with dimensions 8 inches, 6 inches, and 4 inches?

- A. 288 cubic inches       C. 240 cubic inches  
 B. 216 cubic inches       D. 192 cubic inches

2) What is  $3.6 \times 2.4$ ?

- A. 8.64       C. 9.44  
 B. 8.84       D. 9.64

3) A piece of fabric is 3 yards long. If you use  $\frac{1}{4}$  of it for a project, how many yards do you use?



- A.  $\frac{1}{4}$  yard       C.  $\frac{3}{4}$  yard  
 B.  $\frac{1}{2}$  yard       D. 1 yard

4) Find the least common denominator of  $\frac{2}{3}$  and  $\frac{1}{4}$ .

*Record your answer in the space provided.*



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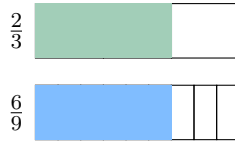
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1) Two fraction bars are shown below. Which equation do they demonstrate?



- A.  $\frac{2}{3} = \frac{4}{9}$ 
 C.  $\frac{2}{3} = \frac{3}{6}$   
 B.  $\frac{2}{3} > \frac{6}{9}$ 
 D.  $\frac{2}{3} = \frac{6}{9}$

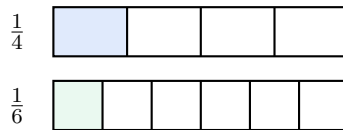
2) A wooden crate has volume 150 cubic centimeters. Its base is 5 centimeters by 5 centimeters. What is its height?

- A. 6 centimeters
  C. 7 centimeters  
 B. 5 centimeters
  D. 25 centimeters

3) Pattern X: 0, 1, 2, 3, 4. Pattern Y: 0, 3, 6, 9, 12. What is the 4th ordered pair  $(X, Y)$ ?

*Record your answer in the space provided.*

4) The models show  $\frac{1}{4}$  and  $\frac{1}{6}$ . What is the sum?



- A.  $\frac{2}{10}$ 
 C.  $\frac{5}{12}$   
 B.  $\frac{1}{4}$ 
 D.  $\frac{2}{24}$



## Grade 5 Mathematics Reference Materials

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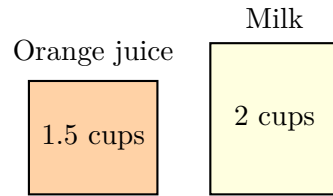
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- 1) A smoothie recipe uses 1.5 cups of orange juice and 2 cups of milk. How many fluid ounces of liquid ingredients are needed if 1 cup = 8 fluid ounces?



Total fl oz: ?

- A. 34 fluid ounces       C. 30 fluid ounces  
 B. 32 fluid ounces       D. 28 fluid ounces
- 2) Find:  $9.6 \div 4$ .

*Record your answer in the space provided.*

- 3) What is  $198 \times 7$ ?
- A. 1,374       C. 1,386  
 B. 1,380       D. 1,400
- 4) Two students mixed paints. Student A used  $\frac{3}{8}$  liter and Student B used  $\frac{5}{12}$  liter. How much paint together?
- A.  $\frac{8}{20}$  liter       C.  $\frac{19}{24}$  liter  
 B.  $\frac{8}{12}$  liter       D. 1 liter



## 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 B is correct.** (KY.5.G.4) All three side lengths are different (9 cm, 11 cm, and 7 cm), so the triangle is scalene. Side lengths tell us the side classification.
- 2) **Choice A is correct.** (KY.5.NBT.2) Dividing by 10 moves the decimal point one place to the left.  $480 \div 10 = 48$ .
- 3) **Choice C is correct.** (KY.5.G.2) Both points have the same x-coordinate (3), so they are on a vertical line. The distance is  $6 - 2 = 4$  blocks north.
- 4) **Choice D is correct.** (KY.5.NBT.2) Dividing by 10 makes the number one-tenth as large, so 9.6 becomes 0.96.
- 5) **Choice A is correct.** (KY.5.MD.4)  $5 \times 1 \times 2 = 10$  unit cubes fit inside the container.
- 6) **Choice C is correct.** (KY.5.NF.1)  $11\frac{3}{4} - 6\frac{1}{4} = 5\frac{2}{4} = 5\frac{1}{2}$  lb.
- 7) **Choice D is correct.** (KY.5.NF.3) Start with one unit fraction,  $\frac{1}{8}$ , and share it into 3 equal parts. Each part is  $\frac{1}{8} \div 3 = \frac{1}{24}$  of the whole.
- 8) **Choice A is correct.** (KY.5.MD.5) Add:  $12.5 + 8.75 + 6.25 = 27.5$  meters.
- 9) **Choice A is correct.** (KY.5.G.1) A point with y-coordinate 0 lies on the x-axis. The point (9, 0) is 9 units right on the horizontal axis.
- 10) **The correct answer is 40.** (KY.5.NF.7) Each whole contains 4 fourths. Ten wholes contain  $10 \times 4 = 40$  fourths, so the quotient is 40.
- 11) **The correct answer is 700,000.** (KY.5.NBT.2) 100,000 has five zeros, so  $7 \times 100,000$  is 7 followed by five zeros: 700,000.
- 12) **Choice B is correct.** (KY.5.NBT.1) In 56.243, the digits after the decimal point are: 2 (tenths), 4 (hundredths), 3 (thousandths). The digit in the thousandths place is 3.
- 13) **Choice D is correct.** (KY.5.MD.1) 1 kilogram = 1,000 grams. Divide:  $5000 \div 1000 = 5$  kg.
- 14) **Choice B is correct.** (KY.5.NF.4)  $\frac{4}{9} \times \frac{3}{5} = \frac{12}{45} = \frac{4}{15}$  (divide by 3).
- 15) **Choice B is correct.** (KY.5.MD.5) Check the student's height:  $6 \times 6 \times 6 = 216$ , not 144. The base area is  $6 \times 6 = 36$  square inches, and  $144 \div 36 = 4$ , so the height is 4 in.
- 16) **The correct answer is 720 cm<sup>3</sup>.** (KY.5.MD.4)  $12 \times 6 \times 10 = 720$  cm<sup>3</sup>.
- 17) **Choice D is correct.** (KY.5.NF.1) Add:  $2\frac{3}{5} + 3\frac{1}{5} = 5\frac{4}{5}$ .
- 18) **The correct answer is  $3\frac{1}{2}$ .** (KY.5.NF.4) Four copies of  $\frac{7}{8}$  make  $\frac{28}{8}$ . Divide 28 by 8 to get  $3\frac{4}{8}$ , which simplifies to  $3\frac{1}{2}$ .
- 19) **Choices A and B are correct.** (KY.5.NBT.2) A and B are true. For powers of 10, the exponent tells how many zeros come after the 1, so  $10^5 = 100,000$  and  $10^1 = 10$ .
- 20) **Choice A is correct.** (KY.5.OA.1) Find the grouped and multiplication parts first:  $7 \times 3 = 21$ ,  $6 - 4 = 2$ , and  $2 \times 2 = 4$ . Then  $21 - 4 = 17$ .
- 21) **Choice A is correct.** (KY.5.OA.3) The pattern grows by 5 each time. Counting terms gives 5, 10, 15, 20, 25, 30, 35, 40, so the 8th term is 40.
- 22) **Choice D is correct.** (KY.5.NF.3) The model counts half-size pieces in 4 wholes. So the matching equation is  $4 \div \frac{1}{2} = n$ .
- 23) **Choice B is correct.** (KY.5.NBT.6)  $31 \times 45 = 1,395$ , so  $1,395 \div 31 = 45$  with no stickers left over.
- 24) **Choice C is correct.** (KY.5.G.2) The four points form a quadrilateral with four right angles and opposite sides equal. This is a rectangle with width 6 units and height 4 units.
- 25) **Choice D is correct.** (KY.5.NF.5)  $\frac{3}{4} < 1$ , so  $5 \times \frac{3}{4}$  is less than 5.
- 26) **Choice A is correct.** (KY.5.NBT.4) The hundredths place is 5. The thousandths place is 1. Since  $1 < 5$ , keep the hundredths digit the same. So 9.951 rounds to 9.95.
- 27) **Choice A is correct.** (KY.5.MD.1) Add the four yields:  $200 + 250 + 225 + 275 = 950$  pounds. Keeping the same unit makes the total easy to compare.
- 28) **Choice B is correct.** (KY.5.NBT.4) Subtract:  $5.67 - 2.15 = 3.52$ . So the missing digit (hundredths of first addend) is 2.



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**Gallery Exhibition Preview**

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## Hello, Mathematical Artist!

★ Magnificent gallery! You've created six complete collections of mathematical artwork, carefully crafting solutions with precision and creativity like a master artist! Each problem was a blank canvas waiting for your artistic mathematical expression. You've filled your gallery with beautiful work that demonstrates both technical skill and creative insight! ★

◇ **Here's what accomplished artists know:** creating masterpieces requires vision, technique, and practice. Artists sketch ideas, experiment with methods, and refine their work through multiple iterations. You've practiced that artistic process through these six tests! Your mathematical artistry has matured, and your techniques have become refined and confident! ◇

### Artist's Portfolio Review

1. **Creative Vision:** You see multiple approaches to mathematical challenges!
2. **Technical Skill:** Your execution of procedures is precise and clean!
3. **Artistic Expression:** Your solutions show both logic and elegance!
4. **Exhibition Ready:** Your portfolio is complete and impressive!

**Remember this artistic wisdom:** great artists develop their unique style through practice. Your mathematical style; your way of approaching problems, organizing work, and verifying answers has become distinctly yours. On test day, express your mathematical artistry confidently. The world is ready to admire your work!

Want to display a particularly beautiful solution or discuss mathematical aesthetics? Send your artwork to [reza@testinar.com](mailto:reza@testinar.com). I celebrate mathematical creativity!

**Reza Nazari & Jay Daie**

Your Math Coaches for Steady Progress

# 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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