

8

Kentucky

KSA

GRADE 6

MATH

PRACTICE TESTS

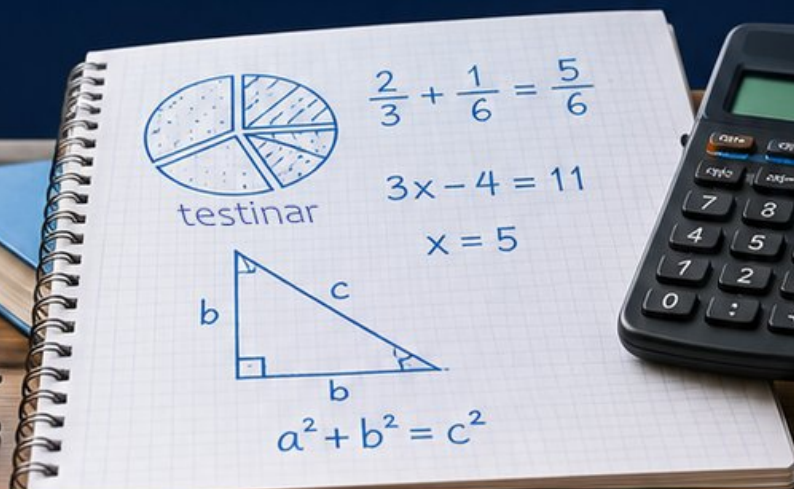
8
PRINTED
TESTS

+

2
ONLINE
TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



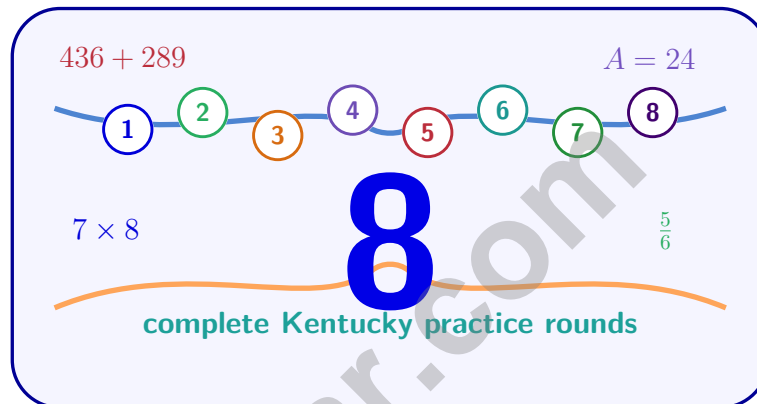
STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 Kentucky KSA Grade 6 Math Practice Tests

Standards-Aligned Bluegrass Practice Stamina for Kentucky Summative Assessment



Eight complete 40-question Grade 6 practice rounds for KSA, built for bluegrass practice stamina with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Kentucky Math Explorer!

Eight focused rounds using bluegrass practice stamina

This book gives you eight full Grade 6 practice tests for KSA. Each round uses rolling hills, race-day focus, and careful step checks as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Kentucky Practice Promise

Pace the work like a long race: start carefully, keep notes neat, and finish with a check.

Read

Plan

Check

How to Use This Book

A eight-session routine for bluegrass practice stamina

1. **Work in order.** Take one 40-question test at a time in a quiet place.
2. **Preview the skills.** Scan the quick review pages before beginning the first round.
3. **Correct actively.** Retry missed items before reading the full explanation.
4. **Mark confidence.** Put a small star beside problems where your plan felt strong.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

Kentucky review rhythm: Run one test, study the missed turns, and use the next round to improve your pace.



What Is Inside?

Eight KSA tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–8	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Bluegrass practice stamina means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

Table of Contents

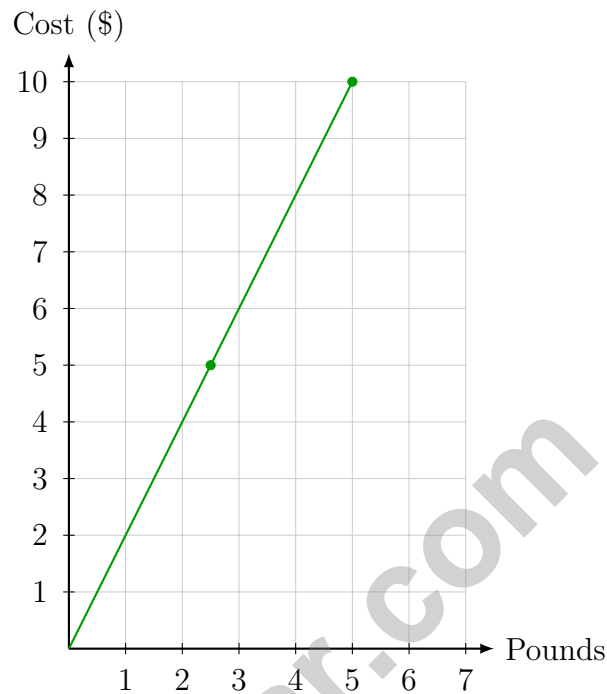
★ Practice Test 1	_____	13
★ Practice Test 2	_____	28
★ Practice Test 3	_____	44
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
★ Practice Test 6	_____	89
★ Practice Test 7	_____	104
★ Practice Test 8	_____	121
Practice Test Answer Keys	_____	140
Practice Test Answers and Explanations	_____	145

- 1) Two summer camps compare camper satisfaction scores (0–100) using histograms. Camp A has a symmetric, bell-shaped distribution. Camp B has a right-skewed distribution. Both have the same median of 75. What is most likely different?
- A. Camp A's mean is higher than Camp B's
- B. Means cannot be compared for differently-shaped distributions
- C. Both have the same mean
- D. Camp B's mean is higher than Camp A's
- 2) A student calculated the volume of a rectangular prism with dimensions 5 m, 4 m, and 3 m. They wrote $5 + 4 + 3 = 12 \text{ m}^3$. What is the correct volume?
- A. 12 m^3
- B. 20 m^3
- C. 30 m^3
- D. 60 m^3
- 3) A temperature must be at most 32°F to freeze. Which inequality represents this?
- A. $T > 32$
- B. $T \geq 32$
- C. $T < 32$
- D. $T \leq 32$



Scan me!
For more practice
& answers

4) The graph shows the cost of buying apples at a farmer's market.



What is the cost per pound?

- A. \$1 per pound C. \$2 per pound
 B. \$1.50 per pound D. \$2.50 per pound

5) A map has a scale of 1 cm = 10 km. A rectangular region on the map measures 4 cm by 6 cm. What is the area of the actual region?

- A. 240 km² C. 2400 km²
 B. 1200 km² D. 4800 km²



- 6) The maximum capacity is 4,000 gallons. What is the greatest allowed number of gallons?

- 7) What is 0.06×0.8 ?

- A. 0.048 C. 4.8
 B. 0.48 D. 48

- 8) Which ordered pair has an x -coordinate of -5 and shares the same y -coordinate as the point $(2, 8)$?

- A. $(-5, 8)$ C. $(-5, 2)$
 B. $(8, -5)$ D. $(-5, -8)$

- 9) What is $(-9) \times 2$?

- A. -18 C. -7
 B. 18 D. 7

- 10) A diver's position log shows: Start at 0 m (sea level), descend to -25 m, then rise to -10 m. What is the net change from start to finish?

- A. -35 m C. 10 m
 B. -10 m D. 35 m



Scan me!
For more practice
& answers

1) Simplify: $8.9 - 3.4 - 1.2$

A. 3.3

C. 13.5

B. 4.3

D. 5.5

2) The table shows the relationship between side length and perimeter of a square.

Side Length	1	2	3	4
Perimeter	4	8	12	16

Which equation describes this relationship?

A. $P = 3s$

C. $P = s + 3$

B. $P = 4s$

D. $P = 2s + 2$

3) A pentagon has vertices at $(1, 1)$, $(5, 1)$, $(7, 4)$, $(4, 7)$, and $(1, 5)$. How many sides does it have?

A. 4 sides

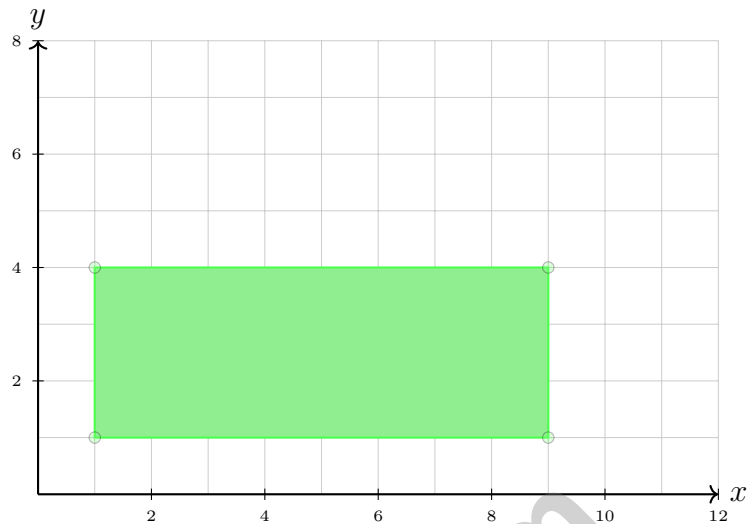
C. 6 sides

B. 5 sides

D. 7 sides

4) Find the median of the data set 2, 3, 4, 5, 100.





5)

A garden plot is rectangular with vertices at $(1, 1)$, $(9, 1)$, $(9, 4)$, and $(1, 4)$. What is the area of the garden?

- A. 18 square units C. 24 square units
 B. 21 square units D. 27 square units

6) Two circles have radii of 2 inches and 4 inches respectively. Using $\pi \approx 3.14$, what is the difference in their areas?

- A. 37.68 in^2 C. 6.28 in^2
 B. 12.56 in^2 D. 50.24 in^2

7) A restaurant tracks daily customer counts. Last month: mean = 150, range = 80. This month: mean = 155, range = 20. What does this tell you?

- A. This month had more customers and less consistency C. Both months had similar customer patterns
 B. This month had more customers and more consistency D. This month definitely had fewer total customers



Scan me!
For more practice
& answers

- 1) The opposite of 7 is -7 . Which pair of integers are opposites?
- A. 3 and -3 C. 2 and -8
 B. -5 and -5 D. 0 and 1
- 2) A babysitter charges \$12 per hour. If the sitter works for h hours, the total earnings are $e = 12h$. When this relationship is graphed with hours on the horizontal axis and earnings on the vertical axis, what earnings value does the line cross the vertical axis at?
- A. 0 C. 6
 B. 12 D. 24
- 3) A trapezoid has parallel sides of length 5 units and 7 units. The height is 4 units. What is its area?
- A. 16 square units C. 24 square units
 B. 20 square units D. 28 square units
- 4) An error analysis: A student claims that $-12 - 8 = -4$. Which statement is correct?
- A. The student is correct; $-12 - 8 = -4$. C. The student is incorrect; the answer is 4.
 B. The student is incorrect; the answer is -20 . D. The student is incorrect; the answer is 20.
- 5) What is 2^4 in expanded form?
- A. $2 + 2 + 2 + 2$ C. 4×4
 B. 2×4 D. $2 \times 2 \times 2 \times 2$



Scan me!
For more practice
& answers

6) Which expression matches “the product of a number f and the difference of 10 and 2”?

A. $f \cdot 10 - 2$

B. $f - 10 + 2$

C. $(f - 10) \cdot 2$

D. $f(10 - 2)$

7) Find the value of $3x^2$ when $x = 2$.

A. 6

B. 12

C. 18

D. 36

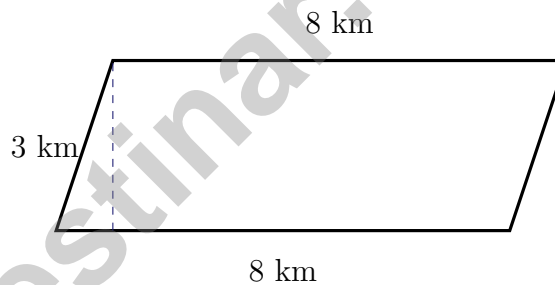
8) A swimming pool must have a temperature greater than 78 degrees Fahrenheit. Which inequality matches this requirement for temperature t ?

A. $t \leq 78$

B. $t = 78$

C. $t > 78$

D. $t < 78$



9)

What is the area of this parallelogram?

A. 11 km^2

B. 16 km^2

C. 24 km^2

D. 64 km^2



Kentucky KSA Practice Test Answer Keys

How to use this Kentucky KSA answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to bluegrass practice stamina
3. rework the problem before reading the full explanation, using this reminder:
Pace the work like a long race: start carefully, keep notes neat, and finish with a check.

A calm Kentucky correction routine turns every missed item into useful practice. Run one test, study the missed turns, and use the next round to improve your pace.



Kentucky Practice Test Answers and Explanations

Review the eight printed KSA tests with paced, thoughtful, and ready for the next stretch habits.

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **KY.6.SP.2** Camp A (symmetric) has mean \approx median = 75. Camp B (right-skewed) has mean $>$ median, so mean $>$ 75. Camp B's high-value tail pulls the mean above the median, making it higher than Camp A's mean.
- 2) **Choice D is correct.** **KY.6.G.2** The correct formula is $V = L \times W \times H$, not addition. $V = 5 \times 4 \times 3 = 60 \text{ m}^3$.
- 3) **Choice D is correct.** **KY.6.EE.8** "At most" means "less than or equal to," so the inequality is $T \leq 32$.
- 4) **Choice C is correct.** **KY.6.EE.9** The graph shows points (2.5, 5) and (5, 10). The slope is $\frac{10-5}{5-2.5} = \frac{5}{2.5} = 2$, so apples cost \$2 per pound.
- 5) **Choice C is correct.** **KY.6.RP.3** Actual dimensions: $4 \times 10 = 40 \text{ km}$ and $6 \times 10 = 60 \text{ km}$. Area: $40 \times 60 = 2400 \text{ km}^2$.
- 6) **The correct answer is 4,000.** **KY.6.EE.8** The maximum value is 4,000.
- 7) **Choice A is correct.** **KY.6.NS.3** $6 \times 8 = 48$. We have $2 + 1 = 3$ decimal places total, so 0.048 is correct.
- 8) **Choice A is correct.** **KY.6.NS.8** The point (2, 8) has $y = 8$. A point with $x = -5$ and the same y -coordinate is $(-5, 8)$.
- 9) **Choice A is correct.** **KY.6.NS.3** Negative times positive is negative: $(-9) \times 2 = -18$.
- 10) **Choice B is correct.** **KY.6.EE.3** Net change from start (0 m) to finish (-10 m): $-10 - 0 = -10 \text{ m}$ (10 meters below sea level).
- 11) **The correct answer is 36.** **KY.6.G.3** Length = $8 - 2 = 6$ units; width = $9 - 3 = 6$ units. Area = $6 \times 6 = 36$ square units.
- 12) **The correct answer is 36.** **KY.6.G.1** Side length: $8 - 2 = 6$ units. Area of square = $6^2 = 36$ square units.
- 13) **Choice D is correct.** **KY.6.EE.3** "The product of 3 and 2" is $3 \cdot 2 = 6$. "The difference of s and" that product is $s - 3 \cdot 2$.
- 14) **Choice A is correct.** **KY.6.EE.3** Substitute $x = \frac{2}{3}$: $3(\frac{2}{3} - 2) + 4 = 3(-\frac{4}{3}) + 4 = -4 + 4 = 0$.
- 15) **Choice B is correct.** **KY.6.G.1** Area = $6 \times 2 = 12 \text{ ft}^2$.
- 16) **Choice C is correct.** **KY.6.SP.2** The different responses show that people exercise different amounts. This variability is expected and indicates the question is statistical. Variability is a defining feature of statistical questions.
- 17) **Choice A is correct.** **KY.6.SP.1** Set P's larger range (20 vs. 15) indicates that its data is more spread out across a wider interval.
- 18) **Choice B is correct.** **KY.6.SP.4** The bar for the 21–30 range has a height of 8, which represents the frequency (number of students) in that range.
- 19) **Choice C is correct.** **KY.6.RP.1** IQR = $Q_3 - Q_1 = 35 - 15 = 20$.
- 20) **Choice A is correct.** **KY.6.NS.1** Probability of failure = $1 - 0.85 = 0.15$.
- 21) **Choice C is correct.** **KY.6.SP.4** With 2-digit stem: stem 11 (112, 115, 118) and stem 12 (121, 124, 125). Stem 12 has 3 leaves: 1, 4, 5.
- 22) **The correct answer is Tables showing 4 : 10 and 6 : 15 both simplify to 2 : 5.** **KY.6.EE.4** Table A: $4 : 10 = 2 : 5$ (divide by 2). Table C: $6 : 15 = 2 : 5$ (divide by 3). Table B: $5 : 12$ does not simplify to $2 : 5$. Table D: $8 : 18 = 4 : 9$ does not simplify to $2 : 5$. Table E: $10 : 20 = 1 : 2$ does not simplify to $2 : 5$.
- 23) **Choice D is correct.** **KY.6.NS.1** 30% of the circle: $0.30 \times 360^\circ = 108^\circ$.
- 24) **Choice D is correct.** **KY.6.SP.4** Misleading graphs use visual techniques (truncated axes, 3D effects, non-uniform scales) to distort perception. The data itself may be correct, but the visual misrepresents it.
- 25) **Choice C is correct.** **KY.6.RP.1** Vanilla is the 7-part amount. Since $21 \div 7 = 3$, each part is worth 3 units, and chocolate is 3 parts: $3 \times 3 = 9$ units.
- 26) **Choice D is correct.** **KY.6.RP.3** Divide cups by minutes: $54 \div 9 = 6$ cups per minute.
- 27) **Choice B is correct.** **KY.6.NS.6** For a 7:3 ratio, if flour = 14, then the scale factor is $14 \div 7 = 2$. So baking powder = $3 \times 2 = 6$. The point (14, 6) is correct.



Scan me!
For more practice
& answers

Ahoy, Math Sailor!

◇ You sailed through 8 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 8 practice tests. You will reach safe harbor!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Captain

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students 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
- ✓ Building Confidence



**PRACTICE TODAY.
SUCCEED 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.



Understand Key Concepts

Reinforce important math ideas aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS