

9

Kentucky KSA

GRADE

6

MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



9 PRINTED TESTS

Realistic practice to build confidence and mastery



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



9 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE TODAY.
SUCCEED TOMORROW.



PRACTICE



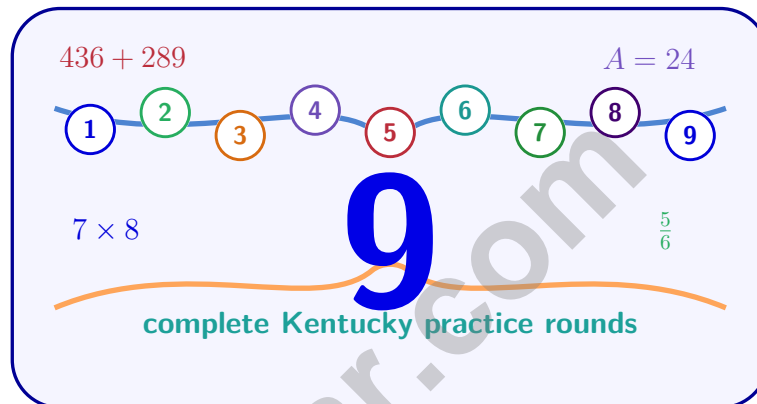
REVIEW



SUCCEED

9 Kentucky KSA Grade 6 Math Practice Tests

Standards-Aligned Bluegrass Practice Stamina for Kentucky Summative Assessment



Nine 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



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Welcome, Kentucky Math Explorer!

Nine focused rounds using bluegrass practice stamina

This book gives you nine 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 nine-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?

Nine KSA tests, 360 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 7–9	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.



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For more practice
& answers

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- 1) A mountain climber is at 3,200 meters. She climbs up 400 meters. What is her new elevation?
- A. 2,800 meters C. 3,800 meters
 B. 3,000 meters D. 3,600 meters
- 2) Which two expressions are equivalent?
- A. $8(5 + 3)$ and $40 + 24$ C. $8(5 + 3)$ and $45 + 24$
 B. $8(5 + 3)$ and $8 + 8$ D. $8(5 + 3)$ and $40 + 3$
- 3) If $|x| = 9$, which value(s) could x be?
- A. 9 only C. Undefined
 B. -9 only D. Both 9 and -9
- 4) Which ordered pair is in Quadrant II?
- A. $(7, -2)$ C. $(4, 6)$
 B. $(-3, 5)$ D. $(-5, -4)$
- 5) A store buys items for \$40 and sells them with a 50% markup. What is the selling price?



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6) Evaluate: $2\frac{1}{4} \div 1\frac{1}{2}$

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

- C. $\frac{9}{8}$
 D. $2\frac{3}{4}$

7) The ratio of red marbles to blue marbles in a bag is 5 : 3. If there are 15 red marbles, how many blue marbles are there?

8) A library receives 6,300 books to place on shelves that hold 48 books each. How many shelves are filled completely?

- A. 130
 B. 131

- C. 132
 D. 133

9) A pencil is 0.15 meters long. A pen is 0.08 meters long. How much longer is the pencil?

- A. 0.07 meters
 B. 0.23 meters

- C. 0.07 cm
 D. 1.87 meters

10) What is the GCF of 22 and 33?

- A. 2
 B. 3

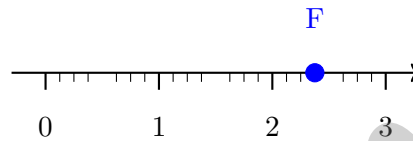
- C. 11
 D. 22



11) On a number line, which integer has an absolute value of 7?

- A. Only 7
- B. Only -7
- C. Both 7 and -7
- D. Neither; absolute value is not defined for 7

12) The number line below has tick marks at eighths from 0 to 1. Which mixed number is closest to point F?



- A. $2\frac{1}{4}$
- B. $2\frac{3}{8}$
- C. $2\frac{1}{2}$
- D. $2\frac{5}{8}$
- 13) A temperature of $-8^{\circ}F$ is compared to $-3^{\circ}F$. Which statement is correct?
- A. $-8^{\circ}F$ is warmer
- B. $-3^{\circ}F$ is colder
- C. $-8^{\circ}F$ is colder
- D. They are the same temperature
- 14) What is the distance between the points $(-3, 4)$ and $(-3, -2)$ on the coordinate plane?
- A. 4 units
- B. 5 units
- C. 6 units
- D. 7 units
- 15) Simplify $12y - 4y + 3y - y$.
- A. $8y$
- B. $12y$
- C. $14y$
- D. $10y$



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1) Which expression is NOT equivalent to $24 + 36$?

A. $6(4 + 6)$

C. $4(6 + 9)$

B. $12(2 + 3)$

D. $3(7 + 12)$

2) A smoothie recipe uses strawberries and bananas in a $5 : 3$ ratio. If the recipe calls for 15 strawberries, how many bananas should be added?

3) A factory packages 480 items in 8 boxes. What is the unit rate in items per box?

4) A student recorded the average temperature change. It dropped 3° every 2 hours for 8 hours. What was the total change?

A. -12°

C. 12°

B. -8°

D. 8°

5) Write an expression for “twice the sum of a number c and 7”.

A. $2c + 7$

C. $2c + 2 \cdot 7$

B. $c + 7 + 2$

D. $2(c + 7)$



6) Which value satisfies both $x \geq 3$ and $x \leq 7$?

A. $x = 2$

C. $x = 8$

B. $x = 5$

D. $x = 10$

7) Two events are scheduled at a recreation center. Event A happens every 15 minutes and Event B happens every 25 minutes. If both start at noon, at what time will they start together again?

A. 12 : 15 PM

C. 1 : 15 PM

B. 12 : 25 PM

D. 1 : 45 PM

8) Evaluate: $\frac{5}{6} \div \frac{5}{12}$

9) An elevator is at floor 0. It goes up 6 floors, then down 10 floors. At which floor is the elevator now?

A. Floor 6

C. Floor 4

B. Floor -4

D. Floor 16

10) A number line shows negative fractions. Point I is located at $-\frac{7}{10}$. Which statement is true?

A. Point I is to the right of $-\frac{3}{5}$

D. Point I is at the same position as -0.6

B. Point I is to the left of $-\frac{4}{5}$

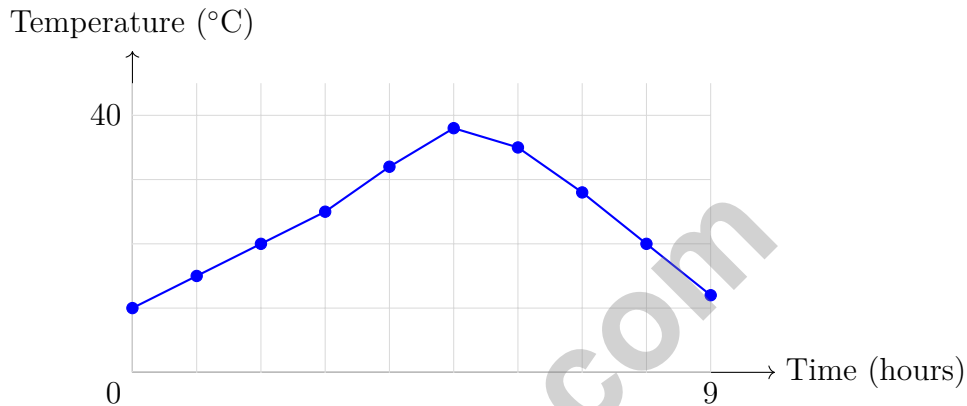
C. Point I is between $-\frac{3}{4}$ and $-\frac{2}{3}$



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1) What is the reflection of $(-4, -5)$ across the x -axis?

- A. $(4, 5)$
 C. $(4, -5)$
 B. $(-4, 5)$
 D. $(-4, -5)$



2)

This line graph shows how outdoor temperature changed from 6 AM to 3 PM. Which statement is TRUE?

- A. Temperature peaked around noon (5 hours after start)
 C. Temperature was highest at 6 AM
 B. Temperature decreased continuously all day
 D. Temperature was constant throughout the day

3) Most students scored 85 or higher on a test, but a few scored in the 60s. What is the shape?

- A. Skewed right
 C. Symmetric
 B. Skewed left
 D. Bimodal

4) A gym tracks weekly visitor counts: 120, 135, 128, 142, 151, 140, 130. When ordered: 120, 128, 130, 135, 140, 142, 151. Find the interquartile range.

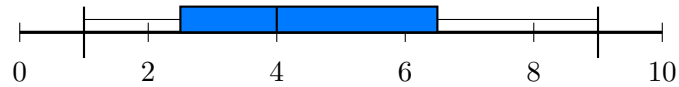
A. 12

C. 15

B. 31

D. 14

5) Look at the box plot below. How many quartiles divide the data into equal parts?



A. One quartile

C. Three quartiles

B. Two quartiles

D. Four quartiles

6) A tech company surveyed 560 employees about department. The circle graph shows $\frac{7}{16}$ work in engineering. How many work in engineering?

A. 220

C. 280

B. 245

D. 315

7) A survey asks: "How many hours did you spend reading last week?"
What is the population for this question?

A. All the people whose reading time is being studied

C. Books in the library

B. Hours of the day

D. The number 7



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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.



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Kentucky Practice Test Answers and Explanations

Review the nine 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.EE.3)** Climbing up means adding elevation: $3,200 + 400 = 3,600$ meters.
- 2) **Choice A is correct.** **(KY.6.NS.4)** $8(5 + 3) = 8 \cdot 5 + 8 \cdot 3 = 40 + 24$. Choice B gives $8 + 8 = 16$, so it is not equivalent.
- 3) **Choice D is correct.** **(KY.6.SP.4)** Both $|9| = 9$ and $|-9| = 9$, so x could be either value.
- 4) **Choice B is correct.** **(KY.6.NS.8)** Quadrant II has negative x and positive y . The point $(-3, 5)$ fits this pattern.
- 5) **The correct answer is 60.** **(KY.6.RP.3)** Markup is 50% of $\$40 = 0.50 \times 40 = \20 . Selling price is $\$40 + \$20 = \$60$.
- 6) **Choice B is correct.** **(KY.6.NS.1)** $2\frac{1}{4} = \frac{9}{4}$ and $1\frac{1}{2} = \frac{3}{2}$, so $\frac{9}{4} \div \frac{3}{2} = \frac{9}{4} \times \frac{2}{3} = \frac{18}{12} = \frac{3}{2} = 1\frac{1}{2}$.
- 7) **The correct answer is 9.** **(KY.6.RP.3)** Ratio 5 : 3 with 15 red marbles: each part is $15 \div 5 = 3$ marbles. Blue marbles: $3 \times 3 = 9$.
- 8) **Choice B is correct.** **(KY.6.NS.2)** $6,300 \div 48 = 131$ remainder 12. So 131 shelves are filled completely.
- 9) **Choice A is correct.** **(KY.6.NS.3)** Subtract: $0.15 - 0.08 = 0.07$ meters. Align decimal points.
- 10) **Choice C is correct.** **(KY.6.NS.4)** Factors of 22: 1, 2, 11, 22. Factors of 33: 1, 3, 11, 33. Common factors: 1, 11. GCF is 11.
- 11) **Choice C is correct.** **(KY.6.NS.5)** Absolute value is the distance from zero. Both 7 and -7 are 7 units away from zero, so $|7| = |-7| = 7$.
- 12) **Choice B is correct.** **(KY.6.EE.8)** Point F is at $2 + \frac{3}{8} = 2\frac{3}{8}$, which equals 2.375.
- 13) **Choice C is correct.** **(KY.6.NS.7)** $-8 < -3$, so $-8^\circ F$ represents a lower (colder) temperature.
- 14) **Choice C is correct.** **(KY.6.NS.8)** The x -coordinates are the same, so subtract the y -coordinates: $|4 - (-2)| = |4 + 2| = 6$ units.
- 15) **Choice D is correct.** **(KY.6.EE.3)** Combine like terms: $(12 - 4 + 3 - 1)y = 10y$.
- 16) **The correct answer is 2,500.** **(KY.6.RP.3)** Multiply by the conversion factor: $2.5 \text{ liters} \times 1000 \text{ mL/liter} = 2500 \text{ mL}$.
- 17) **Choice D is correct.** **(KY.6.EE.9)** Speed = $\frac{\text{distance}}{\text{time}} = \frac{1 \text{ mi}}{10 \text{ min}} = 0.1$ miles per minute.
- 18) **Choice C is correct.** **(KY.6.G.1)** $A = \frac{1}{2} \times 20 \times 8 = 80 \text{ ft}^2$.
- 19) **Choice B is correct.** **(KY.6.G.2)** From $V = L \times W \times H$, we have $120 = L \times 5 \times 4$. So $L = 120 \div 20 = 6$ cm.
- 20) **Choice C is correct.** **(KY.6.G.3)** Side length = 4 units. Perimeter = $4 \times 4 = 16$ units.
- 21) **The correct answer is Food and Transportation are correctly calculated.** **(KY.6.EE.2)** A: Housing is $35\% \times 2000 = \$700$, not $\$800$. Incorrect. B: Food is $25\% \times 2000 = \$500$. Correct. C: Utilities is $12\% \times 2000 = \$240$, not $\$260$. Incorrect. D: Transportation is $10\% \times 2000 = \$200$. Correct. E: Other is $18\% \times 2000 = \$360$, not $\$450$. Incorrect.
- 22) **Choice C is correct.** **(KY.6.EE.7)** Two triangular bases: $2 \times 30 = 60 \text{ cm}^2$. Three rectangular faces: $(5 \times 10) + (12 \times 10) + (13 \times 10) = 50 + 120 + 130 = 300 \text{ cm}^2$. Total = $60 + 300 = 360 \text{ cm}^2$.
- 23) **Choice A is correct.** **(KY.6.NS.6)** Translate: $(0, 1) \rightarrow (0 + 2, 1 + 2) = (2, 3)$.
- 24) **Choice B is correct.** **(KY.6.SP.2)** Mean = $\frac{20 + 30 + 40 + 50}{4} = \frac{140}{4} = 35$.
- 25) **Choice A is correct.** **(KY.6.SP.2)** Removing min and max values always reduces the range (by definition, range = max - min). The median, mean, and IQR depend on the specific values and may or may not change.
- 26) **Choice B is correct.** **(KY.6.EE.1)** $9^2 = 9 \times 9 = 81$. A squared (power of 2) number is multiplied by itself once.
- 27) **Choice B is correct.** **(KY.6.EE.3)** "The quotient of 14 and t " is $\frac{14}{t}$. "Decreased by 3" means subtract 3: $\frac{14}{t} - 3$.
- 28) **Choice C is correct.** **(KY.6.EE.3)** Substitute $x = 4$: $\frac{2(4)+4}{2} = \frac{8+4}{2} = \frac{12}{2} = 6$.
- 29) **Choice A is correct.** **(KY.6.EE.8)** A score ≥ 70 includes 70 and above. Since $69 < 70$, it fails to meet the requirement.



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Hi, Strong Climber!

◇ You climbed all 9 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

Guide's tip: on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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

Jay Daie

Your Math Trail Guide

PRACTICE MORE. ACHIEVE MORE.

This **Grade 6 Math Practice Tests** book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on any test.

With 9 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

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.



Deeper Understanding

Reinforce key math concepts 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
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ 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.



9 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS