

10

Kentucky KSA

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



10 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



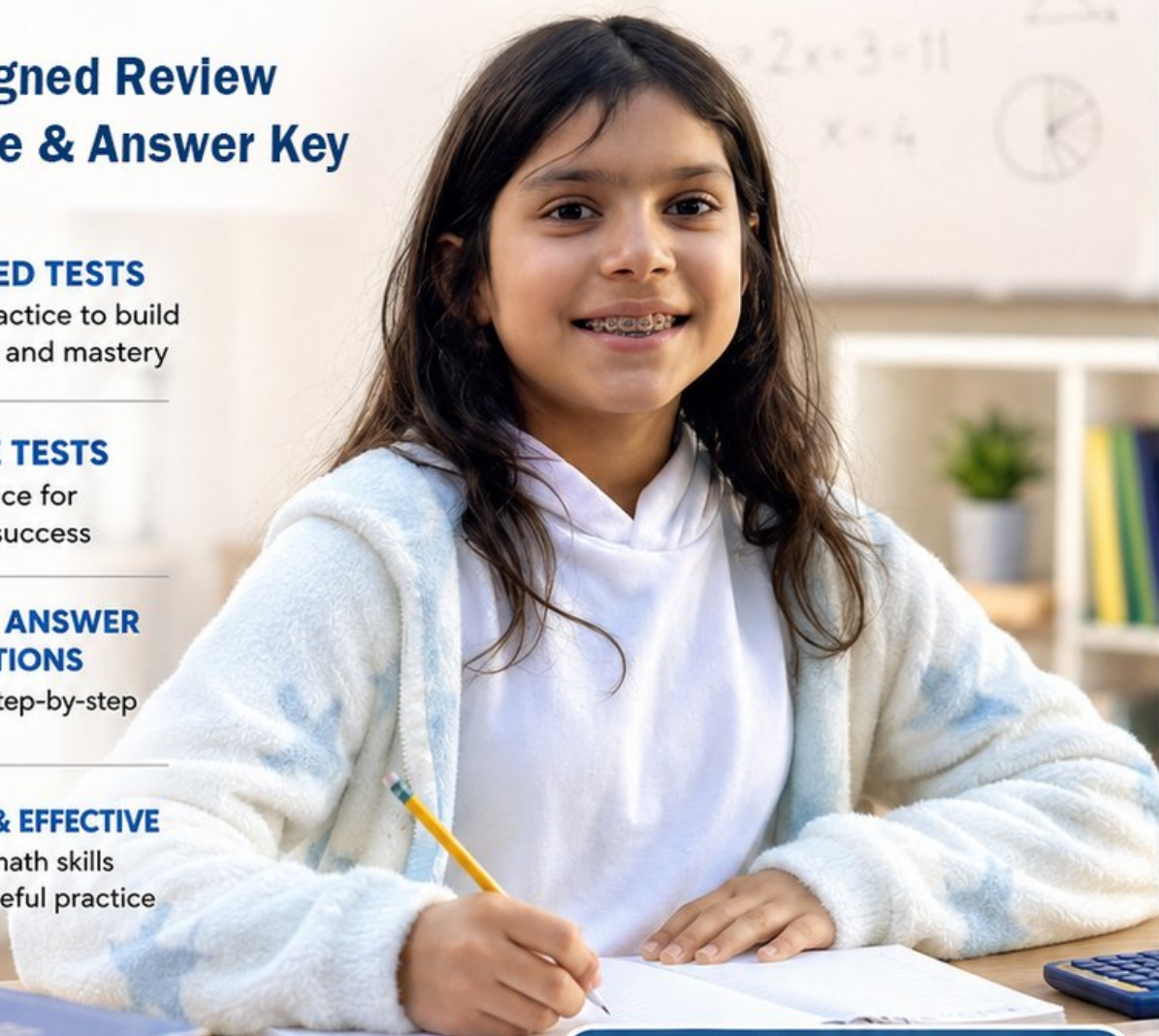
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



10 PRINTED TESTS
+ 2 ONLINE TESTS

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

PRACTICE • REVIEW • SUCCEED

10 Kentucky KSA Grade 6 Math Practice Tests

Standards-Aligned Smooth, Strategic Thinking for Kentucky Summative Assessment



Ten complete 40-question Grade 6 practice rounds for KSA, 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!

Ten steady rounds on a Bluegrass practice course

This book gives you ten full Grade 6 practice tests for KSA. Each round uses rolling pastures, river bends, and careful pacing 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

Do not rush the setup; a good setup makes the solution easier. 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 smooth, strategic thinking

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
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.

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



What Is Inside?

Ten KSA tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up 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	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Kentucky round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

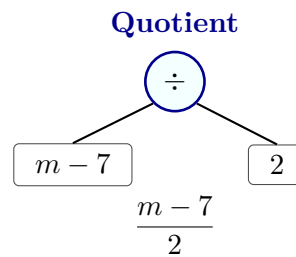
The tests are mixed on purpose. Smooth, strategic thinking means recognizing the skill even when the next question changes topic.



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Table of Contents

★ Practice Test 1	_____	13
★ Practice Test 2	_____	29
★ Practice Test 3	_____	45
★ Practice Test 4	_____	61
★ Practice Test 5	_____	76
★ Practice Test 6	_____	92
★ Practice Test 7	_____	108
★ Practice Test 8	_____	123
★ Practice Test 9	_____	137
★ Practice Test 10	_____	152
Practice Test Answer Keys	_____	167
Practice Test Answers and Explanations	_____	173



1)

This tree represents which phrase?

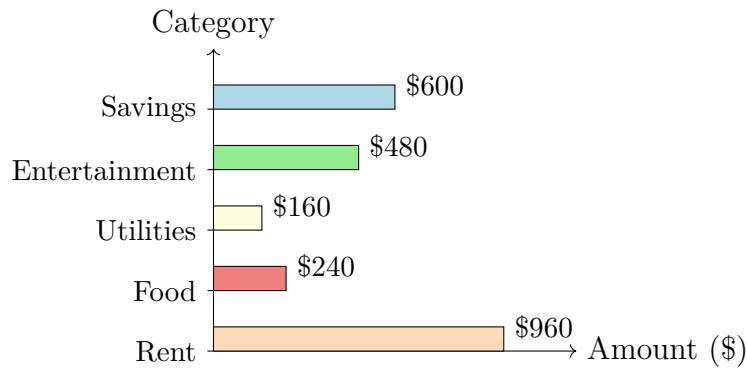
- A. The quotient of m and 7, divided by 2
 C. The quotient of the difference of m and 7, and 2
- B. A number m divided by 2, minus 7
 D. Twice the difference of m and 7
- 2) A dataset in a stem-and-leaf plot has 8 data points, with the median value being 67. This means:

- A. The 4th and 5th values average to 67
 C. Half the data is above 67 and half is below
- B. The 5th value is exactly 67
 D. The value 67 appears twice in the data



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3) The bar chart below shows monthly household expenses for the Chen family (total income: \$2400).



How much of the family's monthly income is spent on Food?

- A. \$240
- C. \$480
- B. \$400
- D. \$600

4) Two phone plans offer data. Compare their costs per gigabyte.

Plan	Data (GB)	Cost
Plan X	4.5	\$18.00
Plan Y	7.5	\$27.50

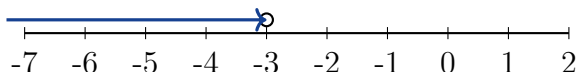
Which plan costs less per gigabyte?

- A. Plan X at \$4.00/GB
- C. Plan Y at \$3.67/GB
- B. Plan X at \$3.50/GB
- D. Plan Y at \$4.50/GB

1) A parallelogram has a base of 8 m and a height of 5 m. What is its area?

- A. 13 m^2
 C. 40 m^2
 B. 26 m^2
 D. 80 m^2

2) Which number line shows $x < -3$?



- A. Open circle at -3 , arrow left
 C. Open circle at -3 , arrow right
 B. Closed circle at -3 , arrow left
 D. Closed circle at 3 , arrow left

3) The table below shows the number of books donated each week to a library.

Weeks	1	2	3	4
Total Books	25	50	75	100

How many books are donated per week?

- A. 20 books per week
 C. 30 books per week
 B. 35 books per week
 D. 25 books per week

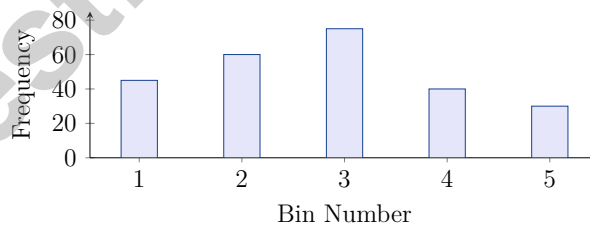
4) Which is the BEST rewrite of the non-statistical question to make it statistical?

Original: "Who is the tallest person?"

- A. Who is the tallest sixth grader in the world?
 C. Is the tallest person male or female?
 B. How tall is the tallest person in inches?
 D. What is the typical height of sixth graders in my school?



- 5) A store manager wants to know the “typical” shoe size sold. Which measure of center would be most useful?
- A. Mean C. Mode
 B. Median D. Range
- 6) A data set has a mean of 10. If you remove an outlier value of 30, which is likely true?
- A. The new mean decreases C. The new median stays the same
 B. The new mean increases D. Both B and C
- 7) For a large data set, which measure of spread is often preferred when the data contains outliers?
- A. Range C. Mode
 B. Interquartile range D. Mean
- 8) A histogram created from a frequency table shows 250 total data points distributed across five bins. If four bins contain 45, 60, 75, 40 data points respectively, how many are in the fifth bin?



- A. 20 data points C. 30 data points
 B. 25 data points D. 35 data points



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1) A scale drawing has a scale of 1 inch = 12 feet. If the actual length of a building is 60 feet, what is its length in the drawing?

A. 4 inches

C. 6 inches

B. 5 inches

D. 7.2 inches

2) A test score improves from 70 to 84. What is the percent increase?

A. 15%

C. 25%

B. 18%

D. 20%

3) A bus travels 25 miles every 30 minutes. How far will it travel in 2 hours?

0 mi	25 mi	50 mi	75 mi	100 mi
0 min	30 min	60 min	90 min	120 min

A. 75 miles

C. 125 miles

B. 100 miles

D. 150 miles

4) A table shows the relationship between the number of items purchased and the total cost.

Items	2	4	6	8
Cost (\$)	10	20	30	40

What is the constant of proportionality?

A. $\frac{10}{2} = 5$

C. $\frac{4}{20} = 0.2$

B. $\frac{2}{10} = 0.2$

D. $\frac{30}{8} = 3.75$



5) From the table above, what percent of the budget is food?

A. 15%

C. 25%

B. 20%

D. 30%

6) A bakery sells cookies in packs of 6. On Monday, they sold 36 cookies, and on Tuesday, they sold 42 cookies. How many packs did they sell in total over both days?

A. 6 packs

C. 13 packs

B. 10 packs

D. 78 packs

7) Which statement about the number line is FALSE?

A. Negative numbers are to the left of zero

C. The number 0 is both positive and negative

B. The integer -10 is less than -5

D. All positive integers are greater than all negative integers

8) A number is 0.67. Write this as a percent.

9) Which number is the opposite of 7?

A. -7

C. 0

B. $\frac{1}{7}$

D. 7



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Kentucky KSA Practice Test Answer Keys

How to use this section with a Grade 6 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

- Choice C is correct.** (KY.6.SP.4) The tree shows $(m - 7)$ divided by 2 to produce $\frac{m - 7}{2}$, representing the quotient of a difference and 2.
- Choice A is correct.** (KY.6.RP.1) With 8 data points (even), the median is the average of the middle two values: positions 4 and 5. If the median is 67, then $(value_4 + value_5)/2 = 67$.
- Choice C is correct.** (KY.6.NS.1) According to the bar chart, the Food category is labeled as \$480.
- Choice C is correct.** (KY.6.SP.2) Plan X costs $18 \div 4.5 = \$4.00$ per GB. Plan Y costs $27.50 \div 7.5 = 3.\overline{66}$ per GB (approximately \$3.67), so Plan Y costs less per gigabyte.
- Choice B is correct.** (KY.6.SP.2) The ratio is 11 : 6. When offensive is 22 (multiply by 2), defensive is $6 \times 2 = 12$.
- Choice A is correct.** (KY.6.NS.1) Use 1 m = 100 cm and 1 m = 1,000 mm. So $3 \times 100 = 300$ cm and $3 \times 1,000 = 3,000$ mm.
- The correct answer is 28.** (KY.6.SP.2) Base: $10 - 2 = 8$ units. Height: $8 - 1 = 7$ units. Area = $\frac{1}{2} \times 8 \times 7 = 28$ square units.
- Choice A is correct.** (KY.6.RP.3) Divide: $5280 \text{ feet} \div 200 \text{ feet/inch} = 26.4$ inches.
- Choice B is correct.** (KY.6.SP.4) IQR = $Q_3 - Q_1 = 22 - 14 = 8$.
- Choice C is correct.** (KY.6.EE.3) First find the total amount of flour and sugar: $2 + 3 = 5$ cups. Flour is 2 of those 5 cups, so the ratio is $\frac{2}{5}$.
- Choice A is correct.** (KY.6.EE.3) The student used the yellow count as the total. There are 3 blue and 5 yellow dots, so the total is $3 + 5 = 8$ and the part-to-whole ratio is 3 : 8.
- Choice C is correct.** (KY.6.G.1) Divide cost by pounds: $3 \div 2 = 1.50$ dollars per pound.
- Choice A is correct.** (KY.6.SP.4) Using two points on the line, e.g., (1, 2) and (2, 4): slope = $\frac{4 - 2}{2 - 1} = 2$ km/hr. Verify with (4, 8): $8 \div 4 = 2$ km/hr. The constant rate is 2 km per hour.
- Choice B is correct.** (KY.6.NS.7) Since the total is 100, the percent equals the number: 23 out of 100 = 23%.
- Choice C is correct.** (KY.6.NS.8) 35% of \$60 = $0.35 \times 60 = \$21$. Sale price is $\$60 - \$21 = \$39$.
- Choice C is correct.** (KY.6.EE.3) Rate is $90 \div 2 = 45$ miles per hour. For 6 hours: $45 \times 6 = 270$ miles.
- Choice B is correct.** (KY.6.EE.4) Using $d = 60t$ with $t = 2.5$: $d = 60 \times 2.5 = 150$ miles.
- The correct answer is 20.** (KY.6.RP.3) Total sum = $25 \times 4 = 100$. Sum of three = $20 + 28 + 32 = 80$. Fourth = $100 - 80 = 20$.
- Choice D is correct.** (KY.6.EE.6) Fixed: $30\% \times \$1000 = \300 . Variable: $45\% \times \$1000 = \450 . Savings: $25\% \times \$1000 = \250 . Variable expenses is the largest.
- The correct answer is Rectangles and triangles are polygons.** (KY.6.SP.4) A is correct: a rectangle with vertices (0, 0), (4, 0), (4, 3), (0, 3) is a polygon on the coordinate plane. B is correct: a triangle with vertices (1, 2), (5, 2), and (3, 6) is a polygon. C, D, and E are incorrect because circles, curves, and ellipses are not polygons—polygons must have only straight sides.
- Choice C is correct.** (KY.6.EE.5) $\frac{3}{10} \times 5 = \frac{15}{10} = \frac{3}{2}$.
- Choice A is correct.** (KY.6.EE.8) $5,625 \div 45 = 125$. Verify: $45 \times 125 = 5,625$.
- Choice A is correct.** (KY.6.EE.9) Round: $8.9 \approx 9$ and $6.2 \approx 6$. Then $9 \times 6 = 54$. The exact answer is 55.18, which is closest to 54.
- Choice D is correct.** (KY.6.G.3) This is a GCF problem. The GCF of 16 and 24 is 8. So they can distribute into 8 bins with 2 soccer balls and 3 basketballs in each.
- The correct answer is 12.** (KY.6.G.1) The absolute deviations are 23, 8, 2, 12, 17. Their sum is 60, and $60 \div 5 = 12$.
- The correct answer is 62.5%.** (KY.6.EE.9) The two middle intervals have $14 + 11 = 25$ students out of 40, and $25/40 = 62.5\%$.
- Choice A is correct.** (KY.6.SP.2) $7 \times 18 = 7(10 + 8) = 7 \cdot 10 + 7 \cdot 8 = 70 + 56 = 126$.



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Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen 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



**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.



Deepen 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.



10 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS