

Kentucky

KSA

GRADE 6

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



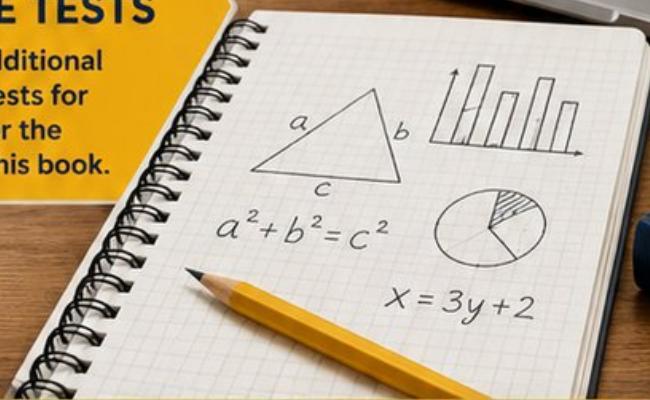
5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



+ 2 ONLINE TESTS

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



PREPARE • PRACTICE • SUCCEED



5 Kentucky KSA Grade 6 Math Practice Tests

Standards-Aligned Bluegrass Practice Stamina for Kentucky Summative Assessment



Five 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!

Eight focused rounds using bluegrass practice stamina

This book gives you five 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 five-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	Final stamina round 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

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1) Solve for x : $x - 7 = 13$

A. $x = 6$

C. $x = 20$

B. $x = 13$

D. $x = 91$

2) Paint coverage: One can of paint covers $\frac{2}{3}$ of a wall. How much of a can is needed to paint exactly $\frac{1}{2}$ of that wall?

A. $\frac{1}{4}$ can

C. $1\frac{1}{4}$ cans

B. $\frac{3}{4}$ can

D. $1\frac{1}{2}$ cans

3) A catering company charges a constant fee per person. The graph shows points (6, 72) and (10, 120) on the line representing the cost-per-person ratio.

What is the cost per person?

A. \$8 per person

C. \$12 per person

B. \$10 per person

D. \$15 per person

4) What is 0.43 as a percent?

A. 4.3%

C. 0.43%

B. 43%

D. 430%

5) A concert ticket sells for \$55. The price is increased by 20% for a premium seat upgrade. What is the new price?

A. \$66

C. \$75

B. \$44

D. \$110



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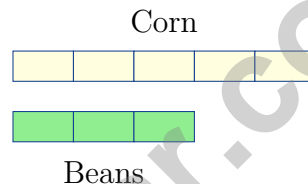
6) A quadrilateral has vertices at $(0, 2)$, $(4, 2)$, $(4, 5)$, and $(0, 5)$. What is its perimeter?

- A. 9 units C. 14 units
 B. 12 units D. 18 units

7) A school's enrollment is divided between elementary and middle school in a ratio of $7 : 5$. If the middle school has 250 students, how many students are in elementary school?

- A. 1000 students C. 500 students
 B. 175 students D. 350 students

8) A farmer plants corn and beans in a $5 : 3$ ratio. The diagram shows this using tape.



If the farmer has 30 rows of corn, how many rows of beans are planted?

- A. 10 rows C. 18 rows
 B. 15 rows D. 20 rows

9) A recipe calls for 2 cups of flour for every 3 eggs. Is this a rate or a simple ratio? Explain.

- A. It is a rate because the units are different C. It is a rate because it involves two quantities
 B. It is a simple ratio because we compare number to number D. It is a simple ratio because the units are both measurements of quantity



10) A printing company prints at two different speeds. Line A prints 240 pages in 4 minutes. Line B prints 300 pages in 6 minutes. Which line prints faster?

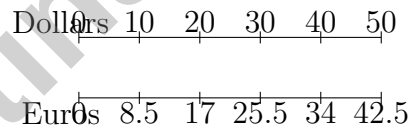
- A. Line A at 50 pages/min C. Line B at 50 pages/min
 B. Line A at 60 pages/min D. Line B at 60 pages/min

11) A craft store sells beads in bulk. The table shows the relationship between number of beads and cost:

Number of Beads	Cost (\$)
100	2.50
200	5.00
?	7.50

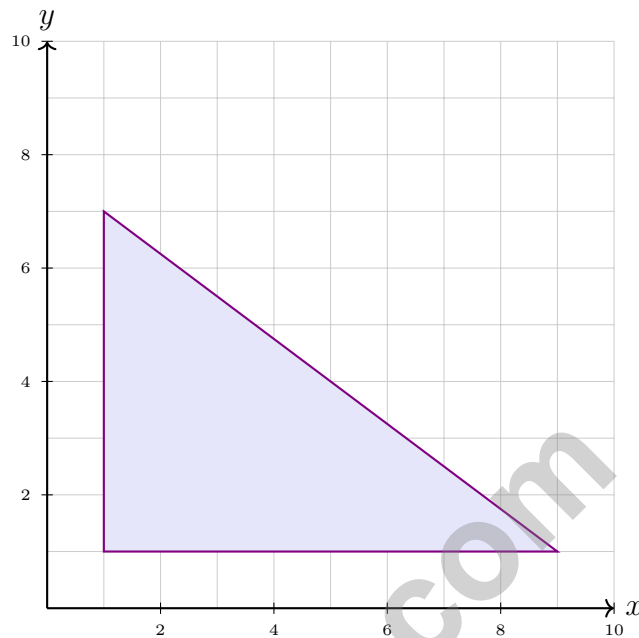
- A. 250 C. 350
 B. 300 D. 400

12) An exchange rate is 1 dollar = 0.85 euros. How many euros is \$50?



- A. 35.5 euros C. 42.5 euros
 B. 40.25 euros D. 58.8 euros

13) A spinner is divided into 5 equal sections. The probability of spinning a particular color is $\frac{1}{5}$ or 20%. If the spinner is spun 100 times, about how many times would you expect to land on that color?



1)

A right triangle has vertices at $(1, 1)$, $(9, 1)$, and $(1, 7)$. What is its area in square units?

- A. 18 square units C. 28 square units
 B. 32 square units D. 24 square units

2) Corn plant heights (inches) from 9 plants: $\{24, 26, 28, 30, 32, 34, 36, 38, 40\}$. What is the shape?

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



3) Which event is **certain** to happen?

- A. Rolling a number greater than 6 on a standard die.
- B. Drawing a card from a deck and it being a heart.
- C. Flipping a coin and it landing on heads or tails.
- D. Picking a red apple from a mixed fruit bowl.

4) A data set contains: 43, 48, 45, 52, 50, 47, 54, 51. A student claims the stem 4 has 4 leaves. Is this claim correct?

Stem	Leaf
4	3, 5, 7, 8
5	0, 1, 2, 4

- A. Yes, because 43, 45, 47, 48 are in the 40s
- B. No, because one value is missing
- C. Yes, but some leaves are ordered incorrectly
- D. No, there are only 3 leaves in stem 4



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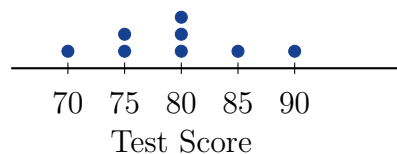
- 1) A school held a basketball tournament. Team A scored 35 points and Team B scored 42 points. Which ratio correctly compares the teams' scores?
- A. 5 : 6 C. 7 : 6
- B. 6 : 5 D. 6 : 7

2)

Notebooks Purchased	Total Cost (\$)
3	12
5	20
8	k

Use the table to find the cost per notebook and calculate the value of k when 8 notebooks are purchased.

- 3) A dot plot displays the test scores: 70, 75, 75, 80, 80, 80, 85, 90. What is the median score?



- A. 75 C. 85
- B. 80 D. 77.5



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& answers

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

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (KY.6.EE.5) Add 7 to both sides: $x = 13 + 7 = 20$.
- 2) **Choice B is correct.** (KY.6.NS.1) If 1 can covers $\frac{2}{3}$ wall, then to cover $\frac{1}{2}$ wall we need $\frac{1}{2} \div \frac{2}{3} = \frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$ can.
- 3) **Choice C is correct.** (KY.6.NS.6) The unit rate is $\frac{72}{6} = 12$ dollars per person. Verify: $\frac{120}{10} = 12$ dollars per person ✓.
- 4) **Choice B is correct.** (KY.6.NS.1) Multiply the decimal by 100: $0.43 \times 100 = 43\%$.
- 5) **Choice A is correct.** (KY.6.RP.3) 20% increase: $0.20 \times 55 = 11$. New price is $\$55 + \$11 = \$66$.
- 6) **Choice C is correct.** (KY.6.G.3) Length = 4 units; width = 3 units. Perimeter = $2(4 + 3) = 14$ units.
- 7) **Choice D is correct.** (KY.6.RP.1) Middle school is the 5-part amount, and it equals 250. Each part is $250 \div 5 = 50$, so elementary school has $7 \times 50 = 350$ students.
- 8) **Choice C is correct.** (KY.6.RP.1) Corn is the 5-part amount. Since $30 \div 5 = 6$, each part is 6 rows, and beans are 3 parts: $3 \times 6 = 18$ rows.
- 9) **Choice A is correct.** (KY.6.RP.3) A rate compares two quantities measured in different units. Here, cups of flour are compared to eggs, so the comparison is a rate: 2 cups of flour for every 3 eggs.
- 10) **Choice B is correct.** (KY.6.NS.1) Line A: $240 \div 4 = 60$ pages/min. Line B: $300 \div 6 = 50$ pages/min. Line A is faster at 60 pages per minute.
- 11) **Choice B is correct.** (KY.6.EE.4) The rate is $100 : 2.50$ or $40 : 1$. For $\$7.50$: $7.50 \times 40 = 300$ beads.
- 12) **Choice C is correct.** (KY.6.RP.3) Unit rate: 1 dollar = 0.85 euros. For $\$50$: $50 \times 0.85 = 42.5$ euros.
- 13) **The correct answer is 20.** (KY.6.NS.1) Expected number of spins = $0.2 \times 100 = 20$ times.
- 14) **The correct answer is 71.5.** (KY.6.SP.4) In order: 67, 68, 71, 72, 74, 75. With 6 values, the median is the average of the 3rd and 4th values: $(71 + 72) / 2 = 71.5$.
- 15) **The correct answer is 200.** (KY.6.NS.1) $\frac{5}{12} \times 480 = 200$ people.
- 16) **Choice B is correct.** (KY.6.RP.3) Divide: $8 \div 16 = 0.5$ pounds.
- 17) **The correct answer is 16.** (KY.6.SP.4) Range is maximum minus minimum: $94 - 78 = 16$.
- 18) **Choice D is correct.** (KY.6.EE.9) 6% of $\$2500 = 0.06 \times 2500 = \150 .
- 19) **Choice C is correct.** (KY.6.RP.3) Ratios: $200/32 = 6.25$, $350/55 \approx 6.36$, $420/65 \approx 6.46$. The ratio is not constant, so the relationship is not proportional. Larger size does not guarantee proportionality.
- 20) **The correct answer is IQR and middle 50%.** (KY.6.SP.2) (A) $IQR = Q3 - Q1 = 45 - 20 = 25$. (D) By definition, the middle 50% of data falls between $Q1$ and $Q3$. (B) is false because the box plot is not definitely symmetric. (C) is false because the range is $80 - 10 = 70$, not 75. (E) is false because $30 - 20 = 10$ while $45 - 30 = 15$, showing asymmetry.
- 21) **Choice C is correct.** (KY.6.EE.2) Available: $100\% - 35\% = 65\%$ of $\$400 = 0.65 \times 400 = \260 .
- 22) **Choice B is correct.** (KY.6.RP.3) To find drawing length from actual length, divide by the scale factor: $24 \text{ m} \div 6 \text{ m/cm} = 4 \text{ cm}$. The student confused the direction of the ratio.
- 23) **Choice D is correct.** (KY.6.NS.3) Reading the chart: 5 ones, 4 tenths, 8 hundredths gives 5.48.
- 24) **Choice A is correct.** (KY.6.NS.4) Multiples of 6: 6, 12, 18, 24, 30, ... Multiples of 8: 8, 16, 24, 32, ... The least common multiple is 24.
- 25) **Choice B is correct.** (KY.6.NS.4) GCF of 35 and 49 is 7. So $35 + 49 = 7(5 + 7)$. Only Choice B uses the GCF and whole numbers.
- 26) **Choice D is correct.** (KY.6.NS.5) A negative number means the value is below zero. Since the temperature is -12°C , it is 12 degrees below zero.
- 27) **Choice D is correct.** (KY.6.SP.4) A decrease of $\$18$ is represented as -18 . The absolute value $|-18| = 18$ dollars represents the magnitude of the change.
- 28) **Choice B is correct.** (KY.6.EE.8) On the number line, -0.1 is to the right of -0.9 , making it greater.



Math Detective at Work

Hi, Math Detective!

◇ You did such a great job! You finished 5 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

Detective tip: on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

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

Jay Daie

Your Math Detective Helper

PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



ACHIEVE SUCCESS

Consistent practice leads to greater results.

WHAT'S INSIDE?



5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



Realistic Questions

A variety of question types to strengthen problem-solving skills.



Answer Keys & Explanations

Detailed solutions to help students learn and improve.



Performance Tracking

Track progress and identify areas that need improvement.



Comprehensive Coverage

All essential topics aligned with Grade 6 math standards.



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