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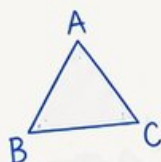
Kentucky KSA

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 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



6 PRINTED TESTS +2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills



SUCCEED

Build confidence and achieve your best

6 Kentucky KSA Grade 6 Math Practice Tests

Standards-Aligned Bluegrass Practice Stamina for Kentucky Summative Assessment



Six 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 six 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 six-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 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.

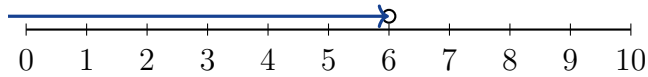


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For more practice
& answers

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1) What inequality matches this number line?



A. $x > 6$

C. $x \geq 6$

B. $x < 6$

D. $x \leq 6$

2) The length of a rectangle is ℓ meters and the width is 4 meters less than the length. Which expression shows the width?

A. $\ell + 4$

C. 4ℓ

B. $\ell - 4$

D. $\frac{\ell}{4}$

3) A shop has some apples. After selling 12 apples, there are 28 left. Write an equation and solve for the original number of apples x .

A. $x + 12 = 28; x = 16$

C. $12x = 28; x = 2.33$

B. $x - 12 = 28; x = 40$

D. $\frac{x}{12} = 28; x = 336$

4) After simplifying $8y + 3 - 2y + 5y - 1$, what is the coefficient of y ?



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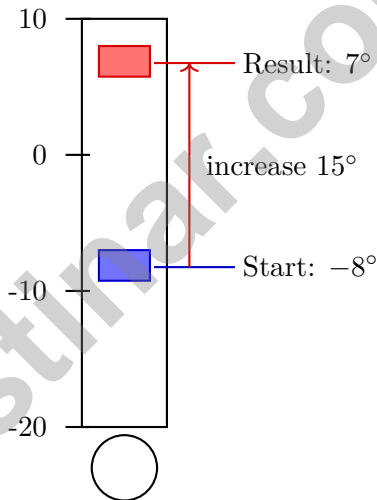
5) A point is located at $(1, -6)$. If you move this point to $(1, 6)$, which transformation occurred?

- A. Reflection across the y -axis C. A 90-degree rotation
 B. A translation up D. Reflection across the x -axis

6) Which number is closest to zero?

- A. -4 C. -0.3
 B. 2 D. 1.5

7) Which statement correctly translates: “Temperature starts at -8°C and increases by 15°C ”?



- A. $-8 + 15 = 7$ C. $8 + 15 = 23$
 B. $-8 - 15 = -23$ D. $-8 + (-15) = -23$

8) What is $(-1) \times (-1) \times (-1) \times (-1) \times 8$?

A. 8

C. 0

B. -8

D. 1

9) A town's elevation is 350 meters. A nearby valley is 120 meters lower. What is the valley's elevation?

A. -230 meters

C. 470 meters

B. 230 meters

D. -470 meters

10) The table shows the relationship between time and distance for a car traveling at constant speed.

Time (hours)	1	3	5
Distance (miles)	60	180	300

Find the speed of the car in miles per hour.

11) Which shows the correct order of operations for $5 + 2^2 \times 3$?

A. Add, then exponent, then multiply

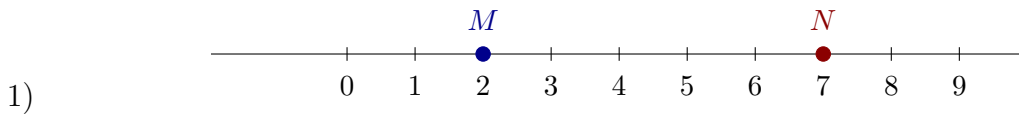
C. Multiply, then exponent, then add

B. Exponent, then add, then multiply

D. Exponent, then multiply, then add



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Which equation is correct?

A. $M = N$

C. $M + 4 = N$

B. $M > N$

D. $M < N$

2) In a dataset, the median is 60 and the IQR is 20. If $Q_1 = 50$, what is Q_3 ?

A. 40

C. 70

B. 60

D. 80

3) A jar contains 24 buttons: 9 red, 7 blue, and 8 yellow. If one button is chosen at random, what is the probability it is blue or yellow?

A. $\frac{7}{24}$

C. $\frac{15}{24}$

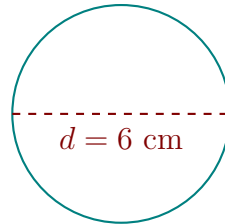
B. $\frac{8}{24}$

D. $\frac{16}{24}$

4) Is this a statistical question? “What is the price of a loaf of bread at the grocery store?” Explain why or why not.



Circle B



1)

Circle B has a diameter of 6 cm. What is its approximate area using $\pi \approx 3.14$?

- A. 18.84 cm^2 C. 37.68 cm^2
 B. 28.26 cm^2 D. 56.52 cm^2

2) Three students measured the ratio of pennies to dimes in their wallets:

- Student A: 4 pennies and 6 dimes
- Student B: 10 pennies and 15 dimes
- Student C: 8 pennies and 10 dimes

Which students have the same penny-to-dime ratio?

- A. Students A and B only C. Students B and C only
 B. Students A and C only D. All three students

3) A student is making a trail mix with a ratio of 4:3 (nuts to dried fruit). If the graph has nuts on the x-axis and dried fruit on the y-axis, which point represents a mixture with 12 cups of nuts?

- A. (12, 8) C. (12, 12)
 B. (12, 9) D. (12, 16)



4) On a spelling test, 36 out of 40 students passed. What percent passed?

- A. 36% C. 90%
 B. 80% D. 95%

5) Out of 250 students at a school, 30% participate in sports. How many students participate in sports?

- A. 50 C. 75
 B. 70 D. 100

6) A set of data has the stem-and-leaf plot below. Find the median.

Stem	Leaf
3	2, 5, 8
4	1, 3, 6, 9
5	0, 4

7) Which relationship is shown by the equation $y = 7x$?

- A. Proportional; constant of proportionality is 7 C. Proportional; constant of proportionality is $1/7$
 B. Non-proportional; the constant is 7 D. Non-proportional; there is a 7-unit shift



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

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (KY.6.EE.8) An open circle at 6 means 6 is not included. The arrow points left toward smaller values, so the inequality is $x < 6$.
- 2) **Choice B is correct.** (KY.6.EE.6) “4 meters less” means subtract 4 from the length.
- 3) **Choice B is correct.** (KY.6.EE.5) Starting number minus 12 sold equals 28 remaining. So $x - 12 = 28$, giving $x = 40$.
- 4) **The correct answer is 11.** (KY.6.EE.3) Combine y terms: $8y - 2y + 5y = 11y$.
- 5) **Choice D is correct.** (KY.6.NS.8) The x -coordinate stays at 1, but the y -coordinate changes from -6 to 6 , which is a reflection across the x -axis.
- 6) **Choice C is correct.** (KY.6.NS.7) The distance from -0.3 to 0 is 0.3 units, which is smaller than the distances of the other numbers.
- 7) **Choice A is correct.** (KY.6.NS.3) Increases by means adding. Start at -8 and add 15 : $-8 + 15 = 7^\circ\text{C}$.
- 8) **Choice A is correct.** (KY.6.NS.3) Four negatives (even number) multiply to a positive: $(-1) \times (-1) \times (-1) \times (-1) = 1$. Then $1 \times 8 = 8$.
- 9) **Choice B is correct.** (KY.6.EE.3) The valley is 120 meters lower: $350 - 120 = 230$ meters.
- 10) **The correct answer is 60.** (KY.6.EE.9) The speed is $\frac{\text{distance}}{\text{time}}$. From the table, $\frac{60 \text{ mi}}{1 \text{ h}} = 60 \text{ mph}$; or $\frac{180 \text{ mi}}{3 \text{ h}} = 60 \text{ mph}$. The constant rate of change is 60 miles per hour.
- 11) **Choice D is correct.** (KY.6.EE.1) Following PEMDAS: first evaluate $2^2 = 4$, then multiply $4 \times 3 = 12$, finally add $5 + 12 = 17$.
- 12) **Choice A is correct.** (KY.6.EE.3) “Three times a number n ” is $3n$. “The quotient of $3n$ and 4” means divide $3n$ by 4: $\frac{3n}{4}$.
- 13) **Choice C is correct.** (KY.6.EE.4) Each term separated by $+$ or $-$ counts as one term. Here: $9a, 4b, 3c, 2$.
- 14) **Choice D is correct.** (KY.6.EE.3) Simplify: $9 + 3n - n = 9 + 2n$. Substitute $n = 2$: $9 + 2(2) = 9 + 4 = 13$.
- 15) **Choice D is correct.** (KY.6.EE.8) “No less than 3.0” means 3.0 or more: $g \geq 3.0$.
- 16) **Choice C is correct.** (KY.6.G.1) Using $A = \frac{1}{2}(b_1 + b_2)h$: $56 = \frac{1}{2}(10 + 6)h = 8h$, so $h = 7$ in.
- 17) **Choice D is correct.** (KY.6.G.2) $V = 4 \times 4 \times 5 = 16 \times 5 = 80 \text{ cm}^3$.
- 18) **Choice A is correct.** (KY.6.NS.6) Reflection over the y -axis negates the x -coordinate: $(3, 2) \rightarrow (-3, 2)$.
- 19) **Choice C is correct.** (KY.6.RP.1) Area = $\pi r^2 \approx 3.14 \times 50^2 = 3.14 \times 2500 = 7850 \text{ m}^2$.
- 20) **Choice A is correct.** (KY.6.SP.1) Range = maximum - minimum = $30 - 9 = 21$.
- 21) **The correct answer is Both $|-13| = 13$ and $|13| = 13$ equal 13.** (KY.6.SP.4) A: $|-13| = 13 \checkmark$. C: $|13| = 13 \checkmark$. B: opposite of 13 is -13 . D: $-|13| = -(13) = -13$. E: $|-13| + |13| = 13 + 13 = 26$. So only A and C equal 13.
- 22) **Choice D is correct.** (KY.6.SP.4) Sum the frequencies: $4 + 6 + 5 + 3 = 18$ total data points.
- 23) **Choice B is correct.** (KY.6.RP.1) IQR = $Q_3 - Q_1 = 18 - 10 = 8$.
- 24) **Choice A is correct.** (KY.6.SP.2) Both have the same mean (18 points), but Athlete A’s smaller IQR (4 vs 8) means the middle 50% of scores cluster more tightly. This indicates more consistent, predictable scoring—exactly what a coach needs for a crucial game.
- 25) **Choice A is correct.** (KY.6.NS.1) Non-red balls = $4 + 3 + 3 = 10$. Probability = $\frac{10}{15} = \frac{2}{3}$.
- 26) **Choice A is correct.** (KY.6.SP.4) Range = Max - Min = $175 - 140 = 35$ cm.
- 27) **Choice A is correct.** (KY.6.NS.1) 30% of 200 is $0.30 \times 200 = 60$ people.
- 28) **Choice B is correct.** (KY.6.SP.4) A circle graph divides the whole into sections proportional to each flavor’s share. The total is 60 students: vanilla = 30%, chocolate = 37%, strawberry = 20%, mint = 13%. Bar graphs compare counts; histograms show distributions; line plots work for small datasets.



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For more practice
& answers

Ahoy, Math Sailor!

◇ You sailed through 6 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 6 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

PRACTICE TODAY. SUCCEED TOMORROW!

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 comprehensive assessments.

With 6 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.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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 concepts aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS