

5

FULL-LENGTH

Kentucky

KSA

GRADE 5 MATH

★ PRACTICE TESTS ★



**5 FULL-LENGTH
PRACTICE TESTS**



**COMPLETE
STANDARDS
REVIEW**



**SKILL PRACTICE,
WORD PROBLEMS,
AND MORE!**

$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$



$$12 \times 3 = 36$$



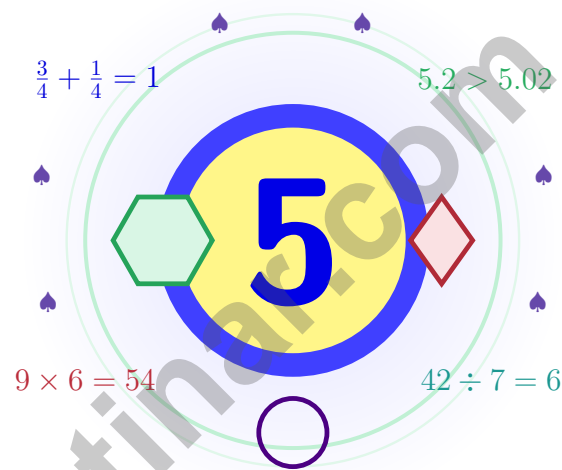
$$\frac{7}{10} = 0.7$$



BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.

5 Kentucky KSA Grade 5 Math Practice Tests

A five-checkpoint trail built for steady, brave thinking



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The Bluegrass State into a steady quest of real growth.

Jay Daie and Reza Nazari



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Kentucky Mathematicians, the Quest Awaits

A five-checkpoint trail built for steady, brave thinking

An Invitation to Grade 5 in Kentucky

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math practice grows like bluegrass – slowly, beautifully, with deep roots that hold up through every season.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

Notice

Notice everything the problem says, shows, and asks.

Sketch

Sketch a quick model, table, or number line.

Confirm

Confirm your answer with a quick estimate.

A strong quest habit for Kentucky: slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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A Simple Path Through Five Tests

A simple routine that turns five tests into real growth

Step 1: Read

Read the quick review pages first.
Wake up important ideas before you begin so your brain is ready to use them.

Step 2: Try

Try one full test with full attention.
Find a quiet space, work carefully, and let accuracy matter more than speed.

Step 3: Reflect

Reflect on which skills want more sunlight.
Circle missed questions and look for patterns. Which skill or habit needs another try?

Step 4: Lift

Lift those skills before the next test.
Read the explanation, repair the work, and carry that lesson into the next test.

A Five-Week Kentucky Quest Map

Week	Mission Focus
Week 1	Take Test 1 and let your math grow deep roots.
Week 2	Take Test 2 and find one habit that grew steadier.
Week 3	Take Test 3 and lift fractions, decimals, and conversions.
Week 4	Take Test 4 and slow down on multi-step problems.
Week 5	Take Test 5 with patient, kind, focused work.



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Grade 5 Mathematics Reference Materials

PERIMETER AND AREA

Perimeter of Rectangle $P = 2l + 2w$ or $P = 2(l + w)$

Area of Rectangle $A = l \times w$

Area of Triangle $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism $V = l \times w \times h$

LENGTH

Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

CAPACITY

Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

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WEIGHT AND MASS

Customary

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1 kilogram (kg) = 1,000 grams (g)

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TIME

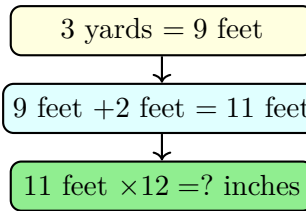
1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

1 day = 24 hours (hr) 1 year = 52 weeks



- 1) How many inches are in 3 yards and 2 feet?



- A. 60 inches
- B. 90 inches
- C. 132 inches
- D. 180 inches
- 2) Error analysis: Tasha added $\frac{3}{4} + \frac{2}{5}$ and got $\frac{5}{9}$. What error did she make?
- A. She found the correct sum.
- B. She did not find a common denominator.
- C. She forgot to simplify.
- D. She subtracted instead of added.
- 3) A triangle has sides of 8 cm, 8 cm, and 8 cm. Each angle is less than 90° . How should the triangle be classified by its sides and by its angles?
- A. Equilateral acute
- B. Isosceles right
- C. Scalene acute
- D. Equilateral obtuse
- 4) A recipe uses $\frac{1}{4}$ cup of flour. The flour is shared equally between 2 mini loaves. How much flour goes into each mini loaf?
- A. $\frac{1}{4}$ cup
- B. $\frac{1}{2}$ cup
- C. $\frac{3}{4}$ cup
- D. $\frac{1}{8}$ cup
- 5) Write a division equation for: 7 wholes split into half-size pieces.

Record your answer in the space provided.



6) Which number is a common denominator for $\frac{2}{5}$ and $\frac{3}{4}$?

A. 20

C. 15

B. 9

D. 10

7) A student solved $7,500 \div 100$ and got 750. What error did they make?

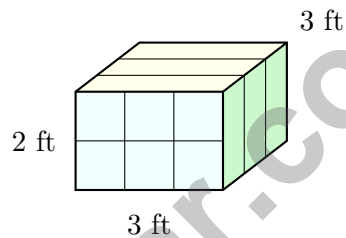
A. Divided by 10 instead of 100

C. Added a zero instead of removing one

B. Moved the decimal point to the right instead of left

D. Did not move the decimal point at all

8) How many cubic feet of space does a storage box with dimensions $3 \text{ ft} \times 3 \text{ ft} \times 2 \text{ ft}$ contain?



A. 8 cubic feet

C. 18 cubic feet

B. 12 cubic feet

D. 24 cubic feet

9) What is $\frac{1}{6} \times \frac{1}{2}$ in simplest form?

A. $\frac{1}{8}$

C. $\frac{2}{8}$

B. $\frac{1}{12}$

D. $\frac{1}{3}$



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Customary	Metric
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1 quart (qt) = 2 pints (pt)	
1 gallon (gal) = 4 quarts (qt)	

WEIGHT AND MASS

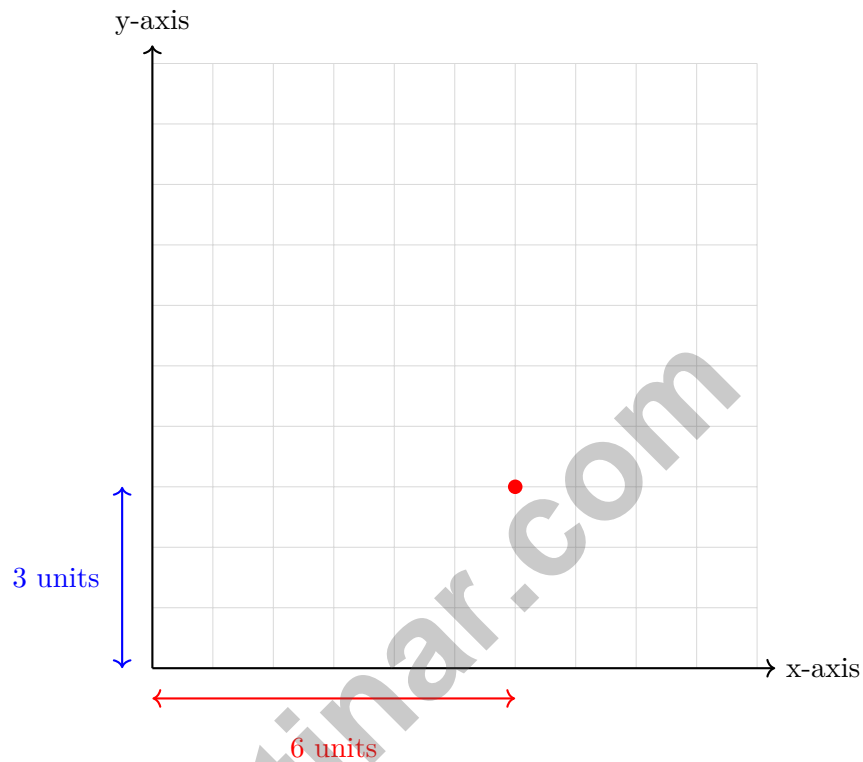
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- 1) A point is shown on the grid. It is 6 units right of the origin and 3 units up. What is the ordered pair for the point?



- A. (0, 3) C. (6, 0)
- B. (3, 6) D. (6, 3)
- 2) Miguel ran $2\frac{3}{4}$ mi on Monday and $3\frac{1}{4}$ mi on Tuesday. Total?
- A. 5 mi C. 6 mi
- B. $5\frac{1}{2}$ mi D. $6\frac{1}{2}$ mi



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1) A strip of paper is 12 inches long. Another strip is $2\frac{1}{2}$ times as long. How long is the longer strip?

A. 42 inches

C. 24 inches

B. 36 inches

D. 30 inches

2) Rounding place-value chart: 0.543

Tenths	Hundredths	Thousandths
5	4	3

Round to the nearest hundredth.

A. 0.54

C. 0.5

B. 0.543

D. 0.55

3) Divide: $567 \div 21$

A. 25

C. 29

B. 31

D. 27

4) Find 7×10^2 .

Record your answer in the space provided.



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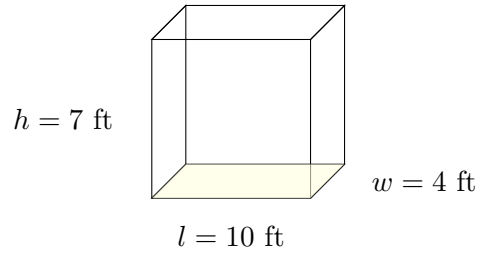
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1)

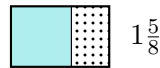
Calculate the volume.

- | | |
|--|---|
| <input type="checkbox"/> A. 280 ft^3 | <input type="checkbox"/> C. 40 ft^3 |
| <input type="checkbox"/> B. 21 ft^3 | <input type="checkbox"/> D. 70 ft^3 |

2) Two boxes contain the same volume. Box X is $4 \text{ cm} \times 5 \text{ cm} \times 8 \text{ cm}$. Box Y is $2 \text{ cm} \times 10 \text{ cm} \times ? \text{ cm}$. What is the missing dimension?

- | | |
|----------------------------------|-----------------------------------|
| <input type="checkbox"/> A. 4 cm | <input type="checkbox"/> C. 16 cm |
| <input type="checkbox"/> B. 8 cm | <input type="checkbox"/> D. 20 cm |

3)



Add: $1 \frac{1}{8} + 1 \frac{5}{8}$

- | | |
|---|---|
| <input type="checkbox"/> A. $2 \frac{3}{8}$ | <input type="checkbox"/> C. 3 |
| <input type="checkbox"/> B. $2 \frac{3}{4}$ | <input type="checkbox"/> D. $3 \frac{3}{8}$ |

4) Rosa and Leo are washing dishes. Rosa washed $\frac{2}{9}$ and Leo washed $\frac{1}{3}$. What fraction washed together?

- | | |
|--|--|
| <input type="checkbox"/> A. $\frac{3}{12}$ | <input type="checkbox"/> C. $\frac{5}{27}$ |
| <input type="checkbox"/> B. $\frac{5}{9}$ | <input type="checkbox"/> D. $\frac{1}{3}$ |



Practice Test Answer Keys

How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

Good correction habits build strong scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice C is correct.** (KY.5.MD.1) First convert yards to feet: 3 yards = 9 feet. Add 2 feet to get 11 feet. Then convert to inches: $11 \times 12 = 132$ inches.
- Choice B is correct.** (KY.5.NF.1) The correct sum is $\frac{3}{4} + \frac{2}{5} = \frac{15}{20} + \frac{8}{20} = \frac{23}{20}$. Tasha incorrectly added $3 + 2 = 5$ and $4 + 5 = 9$.
- Choice A is correct.** (KY.5.G.4) All three sides measure 8 cm, so all sides are equal. Since each angle is less than 90° , the triangle is acute.
- Choice D is correct.** (KY.5.NF.3) Sharing $\frac{1}{4}$ cup into 2 equal parts means $\frac{1}{4} \div 2 = \frac{1}{8}$ cup for each mini loaf.
- The correct answer is $7 \div \frac{1}{2} = 14$.** (KY.5.NF.3) We are counting how many halves fit in 7 wholes, so $7 \div \frac{1}{2} = 14$. Accept an equivalent division equation or the final value.
- Choice A is correct.** (KY.5.NF.1) Multiples of 5: 5, 10, 15, 20, ... Multiples of 4: 4, 8, 12, 16, 20, ... The least common denominator is 20.
- Choice A is correct.** (KY.5.NBT.2) The correct answer is $7,500 \div 100 = 75$. The student's answer of 750 is what you get when dividing by 10 instead.
- Choice C is correct.** (KY.5.MD.3) $V = 3 \times 3 \times 2 = 18$ cubic feet.
- Choice B is correct.** (KY.5.NF.4) $\frac{1}{6} \times \frac{1}{2} = \frac{1}{12}$ (unit-fraction product).
- Choice D is correct.** (KY.5.OA.1) The tree says to find each branch first: $8 + 2 = 10$ and $7 - 3 = 4$. Then multiply the two results: $10 \times 4 = 40$.
- Choice D is correct.** (KY.5.NBT.1) In 9.061, the digit 0 is in the tenths place, 6 is in the hundredths place, and 1 is in the thousandths place. So the digit 6 is in the hundredths place.
- Choice C is correct.** (KY.5.G.2) 3 units to the left means subtract 3 from the x -coordinate: $8 - 3 = 5$. Same horizontal line means the y -coordinate stays 6, giving (5, 6).
- Choice D is correct.** (KY.5.MD.4) Volume of a rectangular prism is length \times width \times height, so $3 \times 4 \times 5$ is correct.
- Choice B is correct.** (KY.5.NBT.2) The diagram shows $284 \div 1000 = 0.284$. Move decimal 3 places left.
- Choice C is correct.** (KY.5.MD.5) Choose the operation from the story, then keep the unit with the answer. Subtract: $64.75 - 8.50 = 56.25$ dollars. This confirms the answer.
- Choice C is correct.** (KY.5.NF.1) Check: $\frac{4}{8}$ reduces to $\frac{1}{2}$; $\frac{3}{6}$ reduces to $\frac{1}{2}$; $\frac{5}{7}$ has GCF=1 (simplest); $\frac{7}{10}$ reduces to $\frac{7}{10}$.
- The correct answer is 32448.** (KY.5.NBT.5) $507 \times 4 = 2,028$ and $507 \times 60 = 30,420$. Sum: $2,028 + 30,420 = 32,448$.
- Choice B is correct.** (KY.5.G.1) In an ordered pair (x, y) , the x represents the horizontal distance (how far right) from the origin.
- Choice D is correct.** (KY.5.NBT.3) Trailing zeros do not change value: $0.25 = 0.250$. Either amount works for the recipe.
- Choice A is correct.** (KY.5.MD.5) The phrase " $\frac{3}{4}$ of the water currently in the pool" means multiply: $\frac{3}{4} \times \frac{2}{3} = \frac{6}{12} = \frac{1}{2}$ of a full pool.
- Choices A, B are correct.** (KY.5.NBT.2) $45 \times 100 = 4500$ and $450 \times 10 = 4500$. C equals 45,000, and D equals 450.
- Choice B is correct.** (KY.5.NF.1) $\frac{1}{4} = \frac{2}{8}$. $\frac{6}{8} - \frac{2}{8} = \frac{4}{8} = \frac{1}{2}$.
- Choice D is correct.** (KY.5.G.2) The first coordinate, 6, matches the x -axis label: minutes. The second coordinate, 72, matches the y -axis label: cookies baked. So the point means cookies baked is 72 when minutes is 6.
- The correct answer is 3.47.** (KY.5.NBT.3) Read the place value to decide whether the decimal uses tenths, hundredths, or thousandths. Three wholes, then 47 hundredths: 3.47. This confirms the answer.
- The correct answer is 12.** (KY.5.MD.1) Convert meters to centimeters before dividing. Since 3 m is 300 cm and each piece is 25 cm, $300 \div 25 = 12$ pieces.
- Choice D is correct.** (KY.5.NBT.2) The number line shows 1.2 divided into four jumps of 0.3 each. Therefore, $1.2 \div 0.3 = 4$.
- Choice C is correct.** (KY.5.NBT.6) $2,145 \div 65 = 33$ cupcakes per order. Check: $65 \times 33 = 2,145$.
- Choice C is correct.** (KY.5.G.2) Since 0 is the first term, the first five A-values are 0, 1, 2, 3, 4 and the first five B-values are 0, 3, 6, 9, 12. The 5th ordered pair is (4, 12).



Greetings, Mathematical Composer!

★ Beautiful composition! You've written five complete mathematical symphonies, carefully arranging mathematical notes, creating harmonious solutions, and expressing elegant problem-solving like a master composer! Each problem was a musical piece requiring rhythm, structure, and creative expression. Your mathematical compositions have reached professional quality! ★

◇ **Here's what renowned composers understand:** creating beautiful music requires understanding musical theory, practicing techniques, and developing personal style. They compose numerous pieces, refining their craft with each creation. You've done exactly that through these five tests! Each test was a new composition, and you've developed your unique mathematical voice! ◇

Musical Review of Compositions

- **Melody Creation:** Your solution paths flow smoothly and logically!
- **Harmonic Balance:** You combine different methods beautifully!
- **Rhythm Precision:** You maintain steady pacing throughout tests!
- **Performance Ready:** Your compositions are ready for the grand concert!

Remember this musical truth: great composers trust their instincts when performing. After five complete compositions, your mathematical instincts are finely tuned. On test day, let your knowledge flow naturally like music. Don't overthinktrust the beautiful mathematical melodies you've composed through practice!

Want to share a particularly elegant mathematical composition or discuss solution harmonies? Send your musical works to reza@testinar.com. I appreciate mathematical artistry!

Reza Nazari & Jay Daie

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practice



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