

$\frac{2}{3}$

0,25



%

3

FULL-LENGTH Kansas

★★★★★
Aligned to State Standards

KAP

MATH

Grade

5

$\frac{2}{4}$

$7 \times 8 =$



7×8

$56 \div 7$

$(a+b)^2$

PRACTICE TESTS

Complete State Standards Review
with Answer Key and
Essential Math Skills Practice



3 Full-Length Practice Tests
Aligned to State Standards



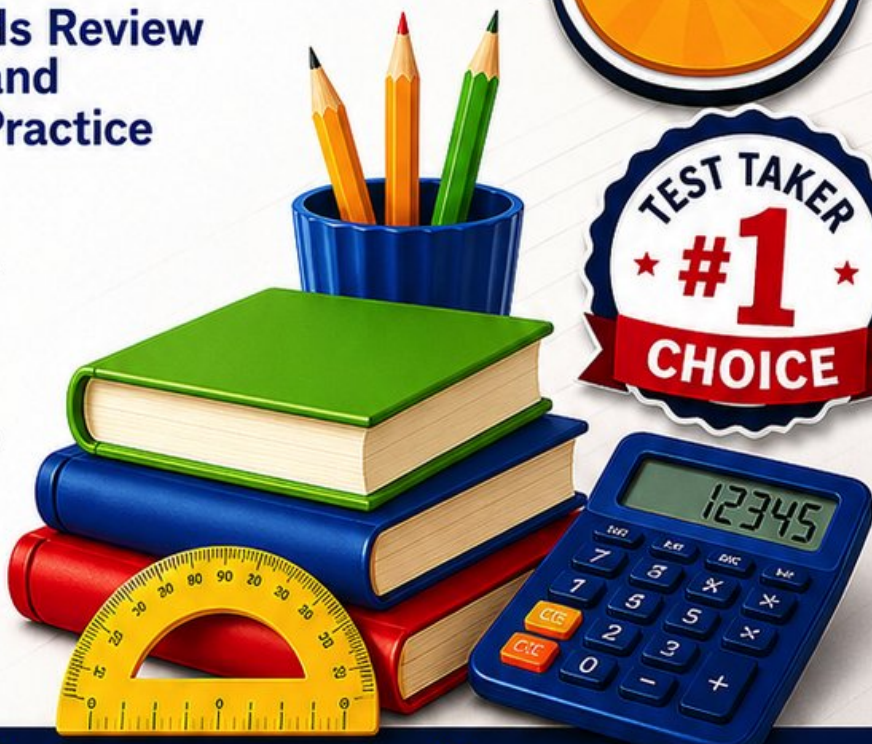
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



Detailed Answer Key
Step-by-Step Explanations
for All Questions



WRITTEN FOR
GRADE 5 STUDENTS



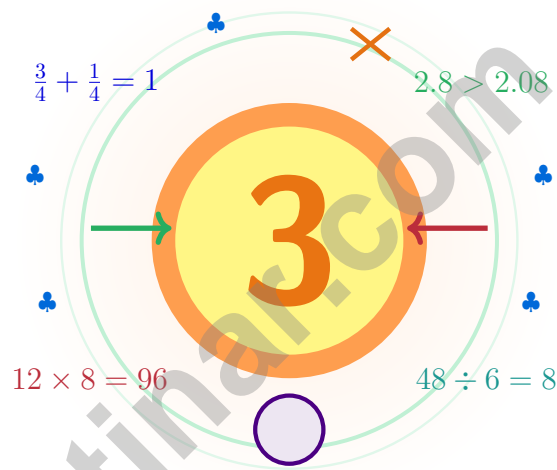
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 Kansas KAP Grade 5 Math Practice Tests

Sunflower-bright thinking for big-sky math



Three full tests, a friendly quick review, smart strategy pages, and student-tested support that help Grade 5 mathematicians from The Sunflower State walk in ready to think.

Jay Daie and Reza Nazari



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Greetings, Young Kansas Mathematician

Sunflower-bright thinking for big-sky math

To Kansas Students Who Love a Puzzle

Strong math thinking opens like a sunflower – slow at sunrise, steady all day, and turning to follow the light.

Some questions will feel easy from the very first read. Others will ask you to pause, sketch, estimate, or try again. That is not a problem. That is practice doing exactly what it should do. Every honest attempt grows your math brain a little stronger.

Notice

Look closely at what the problem says, shows, and asks.

Try

Pick a plan and step through it carefully.

Grow

Use every correction as a clue for what to master next.

A Kansas promise to yourself: I will turn toward the next clear step the way a sunflower turns toward the sun.

How This Book Wants to Help

A simple game plan that turns practice into real progress

Step 1: Preview

Begin with the quick review.

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Practice

Take one full practice test.

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Reflect

Check your work honestly.

Circle missed questions, sort out what went sideways, and notice which skills are calling for more attention.

Step 4: Level Up

Repair and retry.

Read the explanation, fix the work, and carry that lesson forward into the next test.

A Kansas Three-Week Schedule

Week 1	Take Test 1 to learn your starting strengths – not just your starting score.
Week 2	Take Test 2 and give extra attention to the spots where reading carefully or showing work can lift your score.
Week 3	Take Test 3 and bring everything forward: calm focus, smart checking, stronger habits.



Scan me

What to Expect Inside

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in Kansas for the Kansas KAP with the open focus of a wide prairie morning. The goal is bigger than getting answers right. Students are practicing how to read with care, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every single day.

Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, ruling out weak choices, and checking for reasonableness can save both time and points.

Constructed-Response Questions

Students show their steps, explain a method, or back up an answer with clear math. Clean reasoning matters because it shows how the answer was actually found.

Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- line plots, tables, numerical patterns, and coordinate points
- geometry and multi-step real-world problems

What strong work looks like on the KAP: the math is correct, the steps are readable, the labels and units match the problem, and the final answer truly answers the question being asked.



Table of Contents

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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)

1 gallon (gal) = 4 quarts (qt)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

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

1 gram (g) = 1,000 milligrams (mg)

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) If a rectangular prism has dimensions 3 m, 4 m, and 5 m, which expression finds the volume?

A. $3 + 4 + 5$

C. $3 \times 4 + 5$

B. $(3 + 4) \times 5$

D. $3 \times 4 \times 5$

2) A piece of string is $\frac{3}{4}$ meter long. You use $\frac{1}{5}$ of it for a craft. What length of string do you use?

A. $\frac{3}{20}$ meter

C. $\frac{3}{5}$ meter

B. $\frac{1}{5}$ meter

D. $\frac{2}{3}$ meter

3) A sandwich shop earned \$189.00 from turkey sandwiches and \$206.50 from ham sandwiches in one day. What was the total revenue?

Record your answer in the space provided.



4) Where is the origin on a coordinate grid?



- A. In the top right corner
- B. On the x-axis only
- C. At point (5, 5)
- D. Where the x-axis and y-axis meet

5) Write 95×10^2 as a whole number.

- A. 95
- B. 950
- C. 9500
- D. 95000

6) What is $\frac{10}{25}$ in simplest form?

- A. $\frac{1}{2}$
- B. $\frac{2}{5}$
- C. $\frac{5}{10}$
- D. $\frac{3}{7}$



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1) What is 121×5 ?

A. 600

B. 605

C. 610

D. 615

2) One fourth liter of paint is poured equally into 5 cups. Which division equation finds each share?

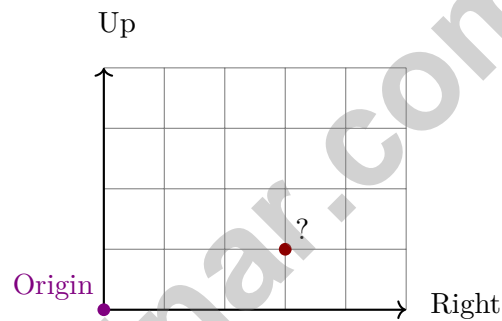
A. $5 \div \frac{1}{4} = n$

B. $\frac{1}{4} \times 5 = n$

C. $5 + \frac{1}{4} = n$

D. $\frac{1}{4} \div 5 = n$

3) Which ordered pair represents the location 3 units right and 1 unit up from the origin?



A. (1, 3)

B. (4, 1)

C. (3, 3)

D. (3, 1)

4) A bakery makes 156 cupcakes. They package them in boxes of 12. How many boxes do they fill completely?

A. 12 boxes

B. 13 boxes

C. 14 boxes

D. 15 boxes



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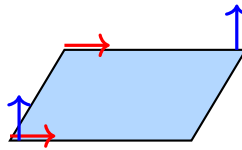
1 day = 24 hours (hr) 1 year = 52 weeks



- 1) A student says $4 \div \frac{1}{2} = 2$. Which statement best explains the student's error?
- A. The student subtracted $\frac{1}{2}$ from 4.
- B. The student divided 4 by 2.
- C. The student found one-half of 4 instead of finding how many halves are in 4.
- D. The student changed 4 to $\frac{1}{4}$.
- 2) Compare $\frac{2}{3}$ and $\frac{3}{4}$ by finding a common denominator. Which is true?
- A. $\frac{2}{3} > \frac{3}{4}$
- B. Cannot compare
- C. $\frac{2}{3} = \frac{3}{4}$
- D. $\frac{2}{3} < \frac{3}{4}$
- 3) Multiplying 2.5 by 100 moves the decimal point two places to the right. What is 2.5×100 ?
- A. 25
- B. 250
- C. 2,500
- D. 25,000
- 4) Make a line plot for these measurements: $\frac{1}{8}, \frac{1}{4}, \frac{1}{4}, \frac{3}{8}, \frac{3}{8}, \frac{3}{8}, \frac{1}{2}$. Which value will have the most X's?

Record your answer in the space provided.

- 5) Look at the parallelogram below. How many pairs of parallel sides does it have?



- A. 0
- B. 1
- C. 2
- D. 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 D is correct.** **(5.MD.5a)** Volume of a rectangular prism is length \times width \times height, so $3 \times 4 \times 5$ is correct.
- Choice A is correct.** **(5.NF.4b)** Using $\frac{1}{5}$ of the string means multiply: $\frac{1}{5} \times \frac{3}{4} = \frac{3}{20}$ meter.
- The correct answer is \$395.50.** **(5.NBT.7)** Line up the decimal points and add the two money amounts: $\$189.00 + \$206.50 = \$395.50$. So the sandwich shop earned \$395.50 in all.
- Choice D is correct.** **(5.G.1)** The origin is the point where the x-axis and y-axis intersect, labeled as (0, 0).
- Choice C is correct.** **(5.NBT.2)** A power of 10 tells how many factors of 10 to use. $95 \times 10^2 = 95 \times 100 = 9500$. This confirms the answer.
- Choice B is correct.** **(5.NF.2)** The GCF of 10 and 25 is 5. Divide: $\frac{10}{25} = \frac{10 \div 5}{25 \div 5} = \frac{2}{5}$.
- Choice B is correct.** **(5.OA.2)** Both factors are largest in option B: $18 > 17$ and $26 > 25$, so 18×26 is greatest.
- Choice C is correct.** **(5.NBT.5)** Multiply: $73 \times 5 = (70 \times 5) + (3 \times 5) = 350 + 15 = 365$.
- Choice D is correct.** **(5.OA.1)** Solve the two inner groups first: $2 + 3 = 5$ and $6 \div 2 = 3$. The bracket becomes $5 + 3 = 8$, and $5 \times 8 = 40$.
- Choice B is correct.** **(5.NF.7c)** $\frac{1}{6} \div 3 = \frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$.
- Choice B is correct.** **(5.NF.7c)** Since $5 \div \frac{1}{5} = 5 \times 5 = 25$, the whole number is 5.
- Choice B is correct.** **(5.NF.5a)** The factors increase from $\frac{99}{100}$ to 1 to $1\frac{1}{100}$, so the products increase: 99, 100, 101.
- Choice C is correct.** **(5.NBT.2)** 300 has two zeros and 20 has one zero. Since $3 \times 2 = 6$, the product is 6,000.
- Choice D is correct.** **(5.MD.3b)** Base: $6 \times 6 = 36$ sq. units per layer. With 3 layers: $36 \times 3 = 108$ cubic units.
- Choice A is correct.** **(5.NF.4)** $\frac{1}{3} \times 24 = \frac{24}{3} = 8$ students play soccer.
- Choice C is correct.** **(5.MD.5)** The known width and height make groups of $3 \times 8 = 24$ cubic centimeters. Since $168 \div 24 = 7$, the length is 7 cm.
- Choice A is correct.** **(5.G.4)** A square has all equal sides (rhombus property) and all right angles (rectangle property), so a square IS both a rhombus and a rectangle.
- The correct answer is $4\frac{1}{2}$ L.** **(5.MD.2)** Add the measurements shown: $\frac{1}{2} + \frac{3}{4} + \frac{3}{4} + 1 + 1\frac{1}{2} = 4\frac{1}{2}$ liters.
- The correct answer is 3.** **(5.MD.1)** $36 \div 12 = 3$ feet. Since 12 inches make 1 foot, 36 inches makes 3 full feet.
- Choice B is correct.** **(5.NF.5b)** Convert: $2\frac{1}{2} = \frac{5}{2}$ and $1\frac{1}{3} = \frac{4}{3}$. Multiply: $\frac{5}{2} \times \frac{4}{3} = \frac{20}{6} = 3\frac{2}{6} = 3\frac{1}{3}$.
- Choices A, B are correct.** **(5.NBT.2)** $3,000 \div 100$ and $300 \div 10$ both equal 30. C equals 300, and D equals 3.
- Choice C is correct.** **(5.NBT.2)** Multiplying by 10 shifts digits left: 3 to hundreds, 4 to tens, 0 in ones place.
- Choice B is correct.** **(5.NBT.7)** $12.5 \div 5 = 2.5$. Think of $125 \div 5 = 25$, then place decimal one place from right: 2.5.
- Choice C is correct.** **(5.MD.5c)** Find each part first: Prism A is $4 \times 2 \times 5 = 40$ cubic feet, and Prism B is $3 \times 5 \times 3 = 45$ cubic feet. Because the parts do not overlap, add them: $40 + 45 = 85$ cubic feet.
- Choice D is correct.** **(5.NBT.3a)** 42 out of 100 squares = $\frac{42}{100} = 0.42$, read as “forty-two hundredths”.
- Choice C is correct.** **(5.G.4)** Figure C is a rectangle with unequal side lengths. It has four right angles, but it does not have four equal sides, so it is not a square.
- Choice B is correct.** **(5.MD.2)** Count the X marks above $5\frac{1}{2}$. There are 3 X marks, so 3 puppies weigh exactly $5\frac{1}{2}$ pounds.
- Choice B is correct.** **(5.OA.1)** Work outward: $12 \div 3 = 4$, then $[4 + 1] = 5$, then $5 \times 2 = 10$. The final subtraction gives $10 - 3 = 7$.
- Choice C is correct.** **(5.NF.2)** LCD = 24. $\frac{5}{12} = \frac{10}{24}$; $\frac{1}{8} = \frac{3}{24}$. $\frac{10}{24} - \frac{3}{24} = \frac{7}{24}$.
- The correct answer is about 1.5.** **(5.NF.2)** $\frac{7}{8} \approx 1$ and $\frac{4}{9} \approx \frac{1}{2}$, so the estimate is $1\frac{1}{2}$. Accept $1\frac{1}{2}$, 1.5, or a clearly equivalent benchmark estimate.
- Choice D is correct.** **(5.G.2)** For $x = 1$: $4(1) = 4$ check; for $x = 2$: $4(2) = 8$ check; for $x = 3$: $4(3) = 12$ check.
- Choice D is correct.** **(5.G.4)** Two sides have the same marking (1 tick mark each), so two sides are equal, making it isosceles.



Personal Trainer Wrap-Up

Math Athlete, Listen Up!

◇ 3 practice tests done. That's serious training. Your math muscles are strong, your endurance is high, and your reflexes (recognizing problem types) are quick. You're in great shape for the big test. ◇

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- **Strength:** STRONG! You handle multi-step problems with power.
- **Speed:** SHARP! You move efficiently from question to question.
- **Recovery:** GREAT! You bounce back fast from tough questions.

Trainer's tip: on test day, hydrate, breathe deeply, and warm up with the easier questions first. Build your rhythm. Your training will carry you the rest of the way.

If you'd like to share your experience or have questions, please email me at reza@testinar.com. I'd love to hear from you!

Reza Nazari & Jay Daie

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