

$\frac{2}{3}$

0,25



%

FULL-LENGTH

Indiana

Aligned to State Standards

ILEARN

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



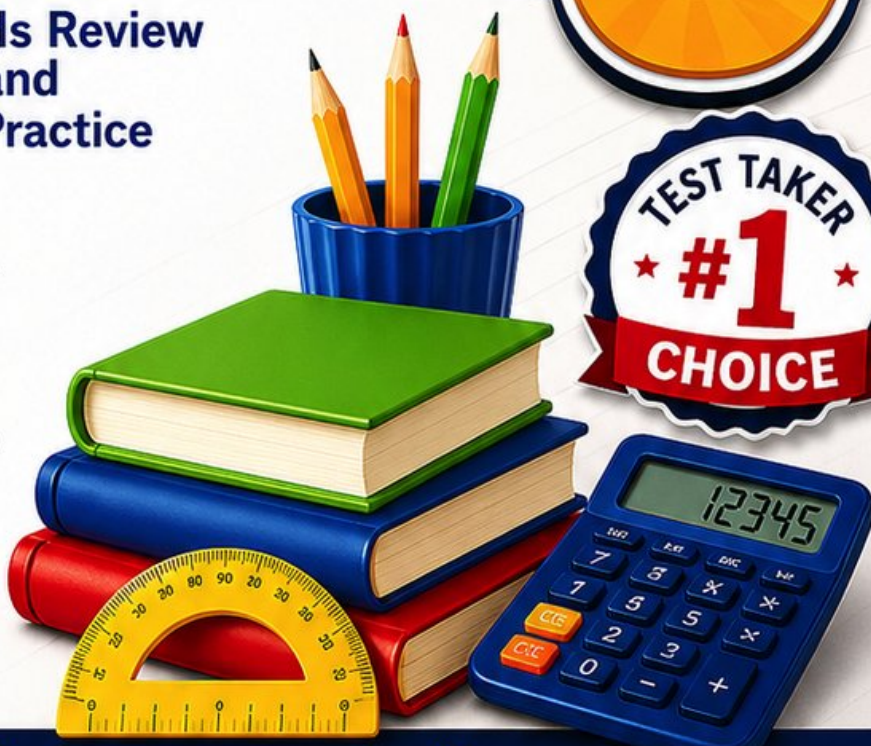
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



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



**WRITTEN FOR
GRADE 5 STUDENTS**



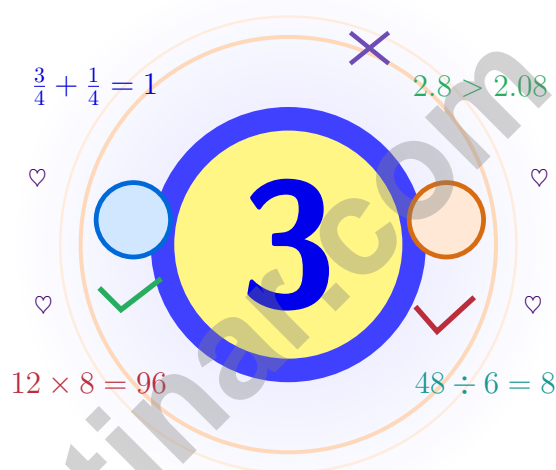
**PERFECT FOR
TEST PREP & REVIEW**



**CLASSROOM, HOME,
OR SELF-STUDY USE**

3 Indiana ILEARN Grade 5 Math Practice Tests

Hoosier math for thinkers who finish strong



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

Jay Daie and Reza Nazari



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Hello, Indiana Problem Solver

Hoosier math for thinkers who finish strong

Dear Indiana Math Thinker

Math is like a long race lap: each careful step keeps you in the right lane and ready for the next turn.

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.

Look

Look at the problem like a detective looks at a clue.

Test

Test your idea with one careful step at a time.

Grow

Grow stronger by reviewing exactly what tripped you up.

An Indiana promise to yourself: I will pace my thinking like a Hoosier driver: steady, smart, and ready when the green flag drops.

Your Game Plan

A simple game plan that turns practice into real progress

Step 1: Read

Read the quick review pages first.
Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Try

Try one test with full attention.
Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Reflect

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

Step 4: Lift

Lift those skills with practice before test 2.
Read the explanation, fix the work, and carry that lesson forward into the next test.

Your 3-Week Indiana Plan

Week 1	Use Test 1 to scout the territory.
Week 2	Use Test 2 to repair the trail.
Week 3	Use Test 3 to walk it cleanly from start to finish.



Scan me

What These Tests Build

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Hoosier State for the Indiana ILEARN with the calm focus a long race demands. 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 ILEARN: 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

★ Practice Test 1	_____	17
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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) What is $10 \div \frac{1}{3}$?

A. 10

B. 20

C. 30

D. 40

2) Estimate: $\frac{5}{6} + \frac{7}{9}$.

A. Less than 1

B. Between 1 and $1\frac{1}{2}$

C. Between $1\frac{1}{2}$ and 2

D. More than 2

3) A baker uses $\frac{2}{5}$ of a bag of flour. Which equivalent fraction has denominator 15?

A. $\frac{2}{15}$

B. $\frac{6}{15}$

C. $\frac{10}{15}$

D. $\frac{12}{15}$

4) Without computing: how many trailing zeros does 500×300 have?

A. 3

B. 4

C. 5

D. 6

5) A baker has 5 pounds of flour. Each loaf needs $\frac{1}{4}$ pound. How many loaves can be made?

Record your answer in the space provided.

6) Order from smallest to largest: 0.3×10 , 0.3×100 , 0.03×10 , 0.03×100 .

A. 0.3, 3, 30, 3

B. 0.3, 3, 3, 30

C. 3, 30, 0.3, 3

D. 3, 0.3, 3, 30



7) Pattern Cat: 6, 12, 18, 24. Pattern Dog: 2, 4, 6, 8. Cat is how many times Dog?

A. 2

C. 4

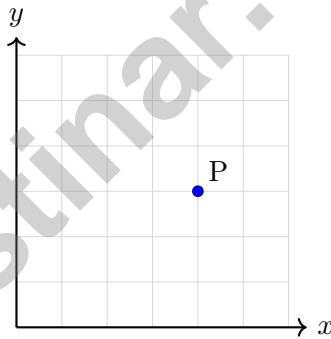
B. 6

D. 3

8) Find the sum: $1\frac{1}{2} + 2\frac{1}{3}$.

Record your answer in the space provided.

9) Point P is shown inside Quadrant I, not on an axis. How many of its coordinates are positive?



Record your answer in the space provided.



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- 1) A bakery has 12 cups of frosting. Each cake uses one fourth cup. Which division equation matches the situation?
- A. $\frac{1}{4} \div 12 = n$ C. $12 \times \frac{1}{4} = n$
 B. $12 \div \frac{1}{4} = n$ D. $12 + \frac{1}{4} = n$
- 2) Which expression represents “the sum of 7 and 5, multiplied by 3”?
- A. $7 + 5 \times 3$ C. $7 \times (5 + 3)$
 B. $(7 + 5) \times 3$ D. $7 + (5 \times 3)$
- 3) A plant’s height was 15.5 cm on day 1 and 12.73 cm on day 30. What was the change in height?
- A. 2.77 cm C. 3.23 cm
 B. 2.67 cm D. 2.87 cm
- 4) A carpenter uses 1.75 liters of paint for each room. For 4 rooms, how much paint is needed?
- A. 6.5 liters C. 7 liters
 B. 6.75 liters D. 7.25 liters
- 5) Find the sum: $\frac{2}{5} + \frac{3}{10}$.

Record your answer in the space provided.



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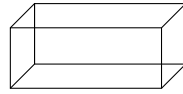
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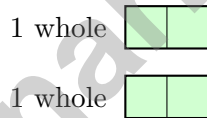


- 1) Which is the best unit for measuring the volume of a swimming pool?



Swimming pool

- A. Cubic millimeters C. Cubic meters
 B. Cubic centimeters D. Cubic inches
- 2) A rectangular prism has length 9 cm, width 4 cm, and height 3 cm. What is its volume?
- A. 27 cm^3 C. 108 cm^3
 B. 36 cm^3 D. 216 cm^3
- 3) The model shows 2 wholes, with each whole cut into pieces of size $\frac{1}{2}$. How many pieces of size $\frac{1}{2}$ are there in all?



2 wholes, each cut into pieces of size $\frac{1}{2}$

- A. 4 C. 6
 B. 2 D. 1
- 4) 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. C. She forgot to simplify.
 B. She did not find a common denominator. D. She subtracted instead of added.



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.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice C is correct.** (5.CA.6) $10 \div \frac{1}{3} = 10 \times 3 = 30$.
- Choice C is correct.** (5.CA.3) $\frac{5}{6} \approx 1$ and $\frac{7}{9} \approx 1$. The exact sum is greater than $1\frac{1}{2}$ and less than 2, so choice C is best.
- Choice B is correct.** (5.CA.4) The denominator 5 is multiplied by 3 to make 15. Multiply the numerator by 3: $\frac{2}{5} = \frac{6}{15}$.
- Choice B is correct.** (5.NS.3) $5 \times 3 = 15$, which does not end in zero. The four factor zeros make 150,000, and that product has 4 trailing zeros.
- The correct answer is 20.** (5.CA.8) $5 \div \frac{1}{4} = 20$. Each pound makes 4 quarter-pound loaves, so 5 pounds makes 20 loaves.
- Choice B is correct.** (5.NS.3) Calculate: $0.3 \times 10 = 3$; $0.3 \times 100 = 30$; $0.03 \times 10 = 0.3$; $0.03 \times 100 = 3$. In ascending order: 0.3, 3, 3, 30.
- Choice D is correct.** (5.CA.11) Cat is 3 times Dog: $6 \div 2 = 3$, $12 \div 4 = 3$, $18 \div 6 = 3$, $24 \div 8 = 3$.
- The correct answer is $3\frac{5}{6}$.** (5.CA.3) Add wholes: $1 + 2 = 3$. Add fractions: $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$. Total: $3\frac{5}{6}$.
- The correct answer is 2.** (5.CA.11) Point P is inside Quadrant I, so its x-coordinate and y-coordinate are both positive. Points on an axis can have a 0 coordinate, but this point is not on an axis.
- The correct answer is $\frac{1}{6} \div 3 = n$.** (5.CA.8) The one-sixth piece is shared among 3 children, so divide by 3. Accept equivalent division equations; the final value $\frac{1}{18}$ may be included if the equation is shown.
- Choice C is correct.** (5.M.4) A rectangular prism is a 3D solid figure, so it has volume. A line segment, rectangle, and point are not solid figures with interior space.
- Choice A is correct.** (5.M.3) The base area is $8 \times 6 = 48$ square centimeters. Since $240 \div 48 = 5$, the height is 5 cm.
- Choice B is correct.** (5.CA.11) Both expressions have the same factor, 2.5. Since 8 is less than 8.5, the product with 8 is smaller.
- Choice B is correct.** (5.CA.10) Write 4.2 as 4.20 before adding. Then $4.20 + 1.63 = 5.83$ (hundredths: $0 + 3 = 3$; tenths: $2 + 6 = 8$; ones: $4 + 1 = 5$). The answer 5.65 suggests the decimal places were not lined up carefully.
- Choice C is correct.** (5.CA.10) Choose the operation from the story, then keep the unit with the answer. Multiply: $5 \times 3.25 = 16.25$ liters. This confirms the answer.
- Choice B is correct.** (5.M.1) Substitute the values into the expression: $A \times (B + C) = 3 \times (7 + 5)$. The parentheses give 12, and $3 \times 12 = 36$.
- Choice C is correct.** (5.NS.1) In 2.907, the digit 7 is in the third place after the decimal point, making it the thousandths place.
- Choice A is correct.** (5.CA.1) The matching tick marks show Figure A has four equal sides. It has no right-angle marks, so it is a rhombus but not a square.
- Choice B is correct.** (5.CA.6) One slice is $\frac{1}{4}$ of the pie. Dividing it between 2 friends: $\frac{1}{4} \div 2 = \frac{1}{8}$.
- Choices A, B are correct.** (5.CA.7) Taking one half of three fourths means multiply: $\frac{1}{2} \cdot \frac{3}{4} = \frac{3}{8}$. Choice C doubles instead of halves, and D reverses the scaling.
- Choice D is correct.** (5.CA.7) Convert to an improper fraction: $2\frac{1}{3} = \frac{7}{3}$. Multiply: $\frac{7}{3} \times 3 = \frac{7 \times 3}{3} = 7$.
- Choice D is correct.** (5.CA.7) Multiply the numerators and denominators: $\frac{2}{7} \times \frac{1}{3} = \frac{2 \times 1}{7 \times 3} = \frac{2}{21}$.
- Choice C is correct.** (5.M.4) Each layer contains 15 unit cubes. Two identical layers make $15 \times 2 = 30$ unit cubes in all.
- Choice B is correct.** (5.CA.3) Multiply: $322 \times 3 = (300 \times 3) + (20 \times 3) + (2 \times 3) = 900 + 60 + 6 = 966$.
- Choice C is correct.** (5.DA.1) Greatest value is 6, least is 1. Range = $6 - 1 = 5$.
- Choice C is correct.** (5.M.3) Use the rectangular-prism volume formula: $9 \times 7 \times 2 = 126$. So the volume is 126 cubic feet.
- Choice B is correct.** (5.CA.11) The x-coordinate (5) represents time in hours, and the y-coordinate (20) represents temperature in degrees Celsius. So at 5 hours, the temperature is 20°C.



Cheer Squad Final Pep Talk

Hey Math Superstar!

◇ 3 practice tests! That's a LOT of work, and you did it all! I'm cheering so loud right now you can probably hear me through this page. You've earned every clap, every hooray, and every smile. ◇

★ **Cheerleader truth:** confidence is built by showing up. You showed up 3 times. That's why your confidence is real today. It's not pretend. You earned it, problem by problem. ★

Cheer Squad Roll Call

- **Effort:** 100% SHOWED UP!
- **Heart:** HUGE!
- **Skill:** STRONG and growing!
- **Spirit:** BRIGHT and bold!

Cheer tip: on test day, be your own cheerleader. Whisper to yourself: "I've got this. I've practiced. I'm ready." Tiny self-cheers make a big difference.

If you want to share a proud moment or ask a question, please email me at jay@testinar.com. I'd love to hear from you!

Jay Daie

Your Math Cheerleader (Go You!)

Build Skills. Boost Confidence. Excel on the Grade 5 Math Test.

Help your child succeed with confidence! This book includes **3 full-length Grade 5 Math practice tests** aligned to state standards. With a focus on essential skills, problem solving, and test readiness, it's the perfect resource for classroom, home, or on-the-go practice.



WHAT'S INSIDE:



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Realistic test format to build familiarity and confidence.



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Fractions, decimals, geometry, measurement, data, number operations, and more.



Build Strong Math Skills

Strengthen understanding and problem-solving through varied question types.



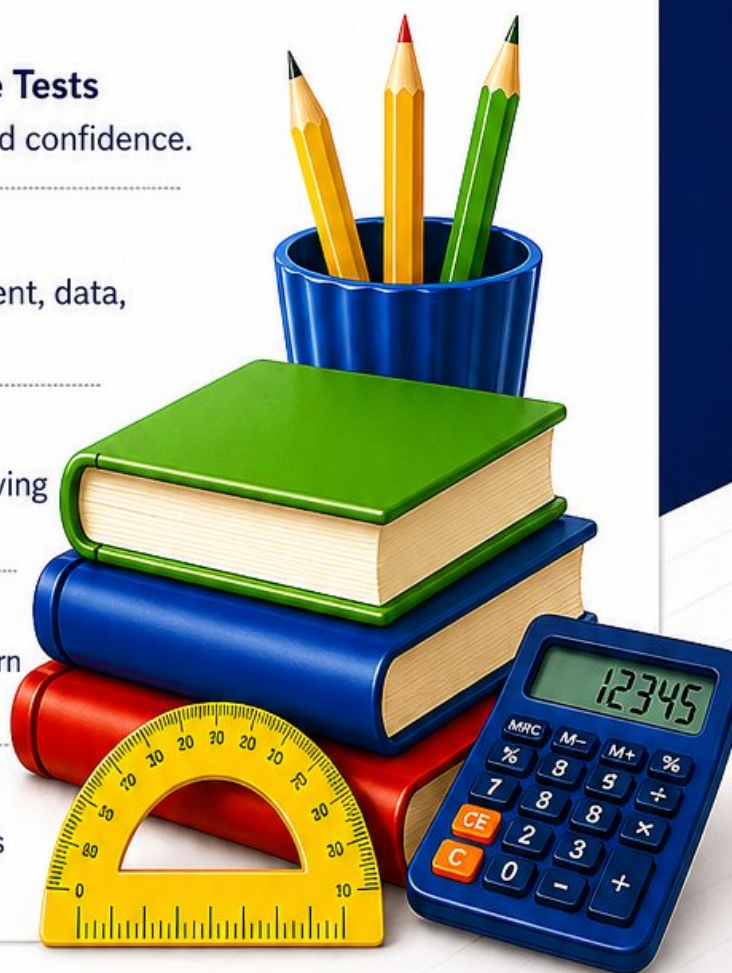
Detailed Answer Key

Step-by-step explanations to help your child learn from mistakes and improve.



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Use score trackers to identify strengths and focus on areas that need more practice.



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- ✓ Reinforce classroom learning
- ✓ Improve accuracy and speed
- ✓ Reduce test anxiety
- ✓ Achieve your best score!



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