

$\frac{2}{3}$

0,25



%

FULL-LENGTH

Iowa

★★★★★
Aligned to State Standards

ISASP

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



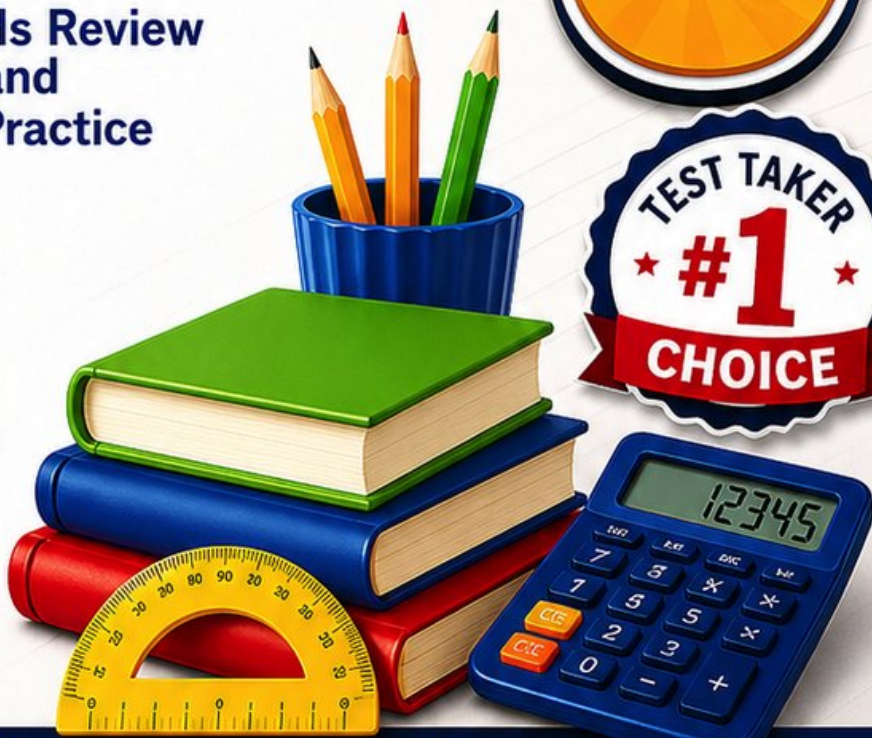
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



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



WRITTEN FOR
GRADE 5 STUDENTS



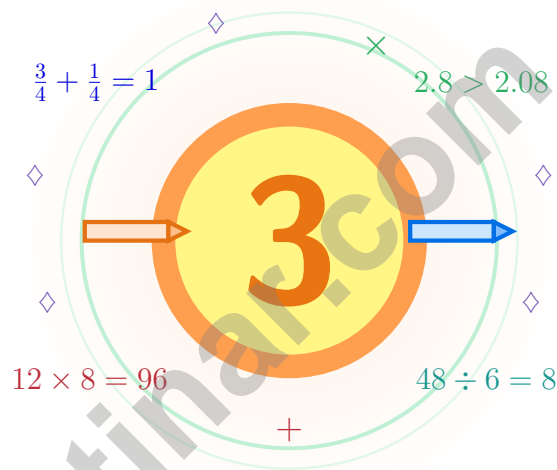
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 Iowa ISASP Grade 5 Math Practice Tests

Cornfield calm for curious math minds



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

Jay Daie and Reza Nazari



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Iowa, Step Inside Your Math Workshop

Cornfield calm for curious math minds

For Every Curious Brain in Iowa

Strong math practice grows the way a cornfield grows – in tidy rows, with patience, and one steady season at a time.

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.

Read

Read with care – math problems hide their gifts.

Try

Try a strategy that fits the size of the numbers.

Reflect

Reflect after each problem to lock the lesson in.

An Iowa promise to yourself: I will plant my work in tidy rows so I can spot what is growing well and what needs more sunlight.

Three Tests, Three Lessons

A simple game plan that turns practice into real progress

Step 1: Notice

Notice the structure: warm-up, test, review.

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

Step 2: Practice

Practice one full test under quiet conditions.

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

Step 3: Honest Check

Check honestly without rushing.

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

Step 4: Polish

Polish the rough spots before test number two.

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

Three Weeks, Three Tests, Three Wins

Week 1	Test 1 is your map-making week.
Week 2	Test 2 is your fix-it week.
Week 3	Test 3 is your show-up-strong week.



Scan me

Three Tests, Up Close

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in Iowa for the Iowa ISASP with the steady rhythm of a long Iowa summer. 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 ISASP: 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	_____	18
★ Practice Test 2	_____	32
★ Practice Test 3	_____	47
Practice Test Answer Keys	_____	62
Practice Test Answers and Explanations	_____	65

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) One tenth gallon of glue is split equally among 5 teams. Which division equation finds each share?
- A. $5 \div \frac{1}{10} = n$ C. $5 + \frac{1}{10} = n$
 B. $\frac{1}{10} \times 5 = n$ D. $\frac{1}{10} \div 5 = n$
- 2) Estimate: 6.8×4.9 . Which is the best estimate?
- A. 20 C. 30
 B. 25 D. 35
- 3) Which product is between 5 and 6?
- A. $1\frac{1}{4} \times 4$ C. $2\frac{1}{2} \times 2$
 B. $1\frac{2}{3} \times 3$ D. $2\frac{3}{4} \times 2$
- 4) A composite play structure is made from two non-overlapping rectangular prisms. Prism A is 7 meters long, 4 meters wide, and 3 meters tall. Prism B is 6 meters long, 2 meters wide, and 5 meters tall. What is the total volume?
- A. 84 cubic meters C. 172 cubic meters
 B. 60 cubic meters D. 144 cubic meters
- 5) Which pair of descriptions CANNOT go together?
- A. Isosceles and acute C. Equilateral and obtuse
 B. Scalene and right D. Isosceles and right
- 6) Write the decimal 0.47 as a fraction.
- A. $\frac{47}{100}$ C. $\frac{4}{7}$
 B. $\frac{47}{10}$ D. $\frac{47}{1000}$



7) What is $9.8 \div 10$?

A. 0.98

C. 0.098

B. 98

D. 980

8) A large jug holds 2 gallons. How many cups can be filled from this jug? (1 gallon = 16 cups)

A. 32 cups

C. 48 cups

B. 20 cups

D. 16 cups

9) $0.6 \times 10 \times 10 = ?$

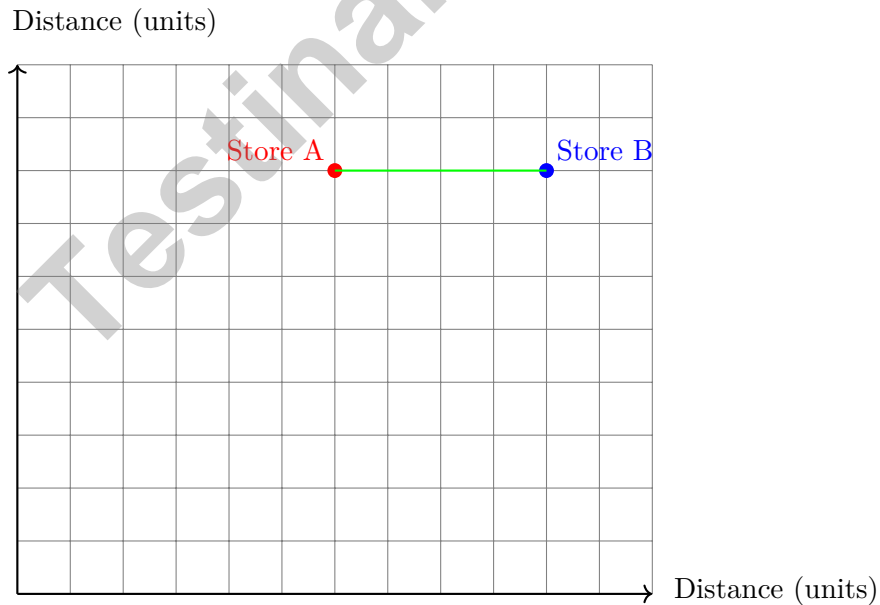
A. 0.6

C. 60

B. 6

D. 600

10) A town map shows Store A at grid point (6, 8) and Store B at (10, 8). How many units apart are these stores on the map?



A. 2 units

C. 6 units

B. 4 units

D. 8 units



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1) $0.9 \div 100 = ?$

A. 9

C. 0.009

B. 0.09

D. 90

2) Without calculating both products, which expression has the larger value?

A: $\frac{2}{3} \times 24$ B: $\frac{4}{5} \times 24$

*Record A or B in the space provided.*3) Which division equation tells how many $\frac{1}{5}$ parts are in 1 whole?

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

C. $\frac{1}{5} \div 5 = \frac{1}{25}$

B. $5 \div \frac{1}{5} = 25$

D. $5 + \frac{1}{5} = 5.2$

4) Using powers of 10, what is $\frac{9,400}{10^2}$?

A. 0.94

C. 940

B. 9.4

D. 94

5) Evaluate the expression: $6 \times [(15 - 7) + (4 \times 2)]$ *Record your answer in the space provided.*

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1) Which expression does NOT equal 0.73?

A. $73 \div 100$

C. $730 \div 1000$

B. $7.3 \div 10$

D. $73 \div 10$

2) A garden bed is $4\frac{1}{2}$ ft long and 2 ft wide. What is its area?

Record your answer in the space provided.

3) Compare $5 \times \frac{3}{4}$ to 5. Which is true?

A. Cannot be determined

C. $5 \times \frac{3}{4} > 5$

B. $5 \times \frac{3}{4} = 5$

D. $5 \times \frac{3}{4} < 5$

4) Estimate the product 74×49 by rounding each factor to the nearest ten.

A. 3,200

C. 3,800

B. 3,500

D. 4,000

5) Find: $90,000 \div 10^3$.

Record your answer in the space provided.



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

- 1) **Choice D is correct.** (5.NF.B.3) The unit fraction is the amount being shared, so divide $\frac{1}{10}$ by 5. The equation is $\frac{1}{10} \div 5 = n$.
- 2) **Choice D is correct.** (5.NBT.B.7) Round $6.8 \approx 7$ and $4.9 \approx 5$. Then $7 \times 5 = 35$.
- 3) **Choice D is correct.** (5.NF.B.4) A, B, and D each equal 5. C gives $\frac{11}{4} \times 2 = \frac{11}{2} = 5\frac{1}{2}$, which is between 5 and 6.
- 4) **Choice D is correct.** (5.MD.C.3) Find each part first: Prism A is $7 \times 4 \times 3 = 84$ cubic meters, and Prism B is $6 \times 2 \times 5 = 60$ cubic meters. Because the parts do not overlap, add them: $84 + 60 = 144$ cubic meters.
- 5) **Choice C is correct.** (5.G.B.4) An equilateral triangle has all angles equal to 60 degrees (acute). It cannot be obtuse. All other pairs are possible.
- 6) **Choice A is correct.** (5.NBT.A.3) The decimal 0.47 has two digits after the decimal point, so it represents 47 hundredths: $0.47 = \frac{47}{100}$.
- 7) **Choice A is correct.** (5.NBT.A.2) Move the decimal 1 place left: $9.8 \div 10 = 0.98$.
- 8) **Choice A is correct.** (5.MD.A.1) Since 1 gallon = 16 cups, multiply 2 by 16: $2 \times 16 = 32$ cups.
- 9) **Choice C is correct.** (5.NBT.A.2) There are two factors of 10, so the decimal moves two places right altogether: $0.6 \rightarrow 6 \rightarrow 60$.
- 10) **Choice B is correct.** (5.G.A.2) Both stores have the same y-coordinate (8), so they are on a horizontal line. The distance is $10 - 6 = 4$ units.
- 11) **Choice B is correct.** (5.MD.C.4) Original: $3 \times 3 \times 3 = 27$ cubes. Remove one layer: $27 - 9 = 18$ unit cubes.
- 12) **Choice A is correct.** (5.NF.B.7) $\frac{1}{2} \div 5 = \frac{1}{2} \times \frac{1}{5} = \frac{1}{10}$.
- 13) **Choice A is correct.** (5.NF.A.1) Use sixths: $\frac{1}{2} = \frac{3}{6}$ and $\frac{1}{3} = \frac{2}{6}$. Then $\frac{3}{6} + \frac{2}{6} + \frac{1}{6} = \frac{6}{6} = 1$ whole.
- 14) **The correct answer is square.** (5.G.B.3) A quadrilateral with four equal sides and four right angles is a square.
- 15) **Choice D is correct.** (5.OA.B.3) Game A inventory is always 5 times Game B: $10 \times 5 = 50$, $20 \times 5 = 100$, $30 \times 5 = 150$, $40 \times 5 = 200$.
- 16) **Choice D is correct.** (5.NF.B.3) Start with one unit fraction, $\frac{1}{5}$, and share it into 4 equal parts. Each part is $\frac{1}{5} \div 4 = \frac{1}{20}$ of the whole.
- 17) **Choice C is correct.** (5.G.B.4) A square has all the properties of a rectangle (all angles 90°) AND all the properties of a rhombus (all sides equal).
- 18) **Choice C is correct.** (5.OA.B.3) Subtract 10 each time: 100, 90, 80, 70, 60, 50, 40, 30.
- 19) **Choices A, B are correct.** (5.MD.A.1) The two cuts total $40 + 60 = 100$ cm, which is 1 meter. Starting with 2 meters leaves 1 meter, so C and D do not match the measurements.
- 20) **Choice D is correct.** (5.NBT.A.3) Both equal 5 tenths or 50 hundredths. Trailing zeros do not change the decimal's value.
- 21) **Choice A is correct.** (5.OA.A.2) The grouped part $(3 + 2)$ equals 5. Multiplying by 4 means there are 4 groups of that 5-unit amount.
- 22) **Choice C is correct.** (5.NBT.B.7) In option C, first borrow 1 tenth so 11 hundredths can be used to subtract 8 hundredths. Then the tenths digit has become 1, so $1 - 3$ requires borrowing from the ones place. Other options do not require borrowing from ones.
- 23) **Choice A is correct.** (5.OA.A.2) The expression has two products, 10×4 and 10×6 . The plus sign tells us those two products are added together.
- 24) **The correct answer is 240000.** (5.NBT.A.2) Use the basic fact $4 \times 6 = 24$. The factors have four zeros total, so the product is 240,000.
- 25) **Choice C is correct.** (5.MD.C.5) The base layer has $7 \times 4 = 28$ square units. Divide the volume by the base area: $140 \div 28 = 5$, so the height is 5 feet.
- 26) **Choice B is correct.** (5.MD.C.3) Volume: $8 \times 6 \times 3 = 144$ cubic meters. Volume always uses cubic units, not square units.
- 27) **Choice B is correct.** (5.NBT.A.1) $0.037 \times 100 = 3.7$. In the product, the digit 3 is in the ones place.



Mathematical Explorer's Journey

Welcome, Brave Explorer!

◇ Phenomenal expedition! You've successfully navigated through 3 mathematical territories, exploring every concept and discovering new strategies along the way! You've mapped out the landscape of Grade 5 math with the courage of a true adventurer. Each problem was uncharted territory, and you charted it with skill and determination! ◇

★ **Wisdom from veteran explorers:** the most rewarding journeys are the ones that challenge you most. Through 3 comprehensive practice tests, you've climbed mathematical mountains, crossed conceptual rivers, and discovered solutions in places you didn't know existed. Your exploration skills are strong, your map is detailed, and you're ready for any test-day adventure! ★

Explorer's Achievement Map

- **Territory Covered:** You've explored every major mathematical concept thoroughly!
- **Navigation Skills:** You can find your way through any problem with multiple solution paths!
- **Equipment Mastered:** You know exactly which strategies to use in different situations!
- **Expedition Ready:** You're fully prepared for the ultimate test day adventure!

Important explorer wisdom: experienced adventurers always review their maps before important journeys. Take a few moments before test day to mentally review your successful strategies. Visualize yourself confidently tackling each type of problem. You've already proven you can handle the expedition!

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

Your Math Teacher and Test-Day Coach

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:



3 Full-Length Grade 5 Math Practice Tests

Realistic test format to build familiarity and confidence.



Covers All Essential Math Topics

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.



Track Progress & Improve

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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and practice materials!