

8

FULL-LENGTH

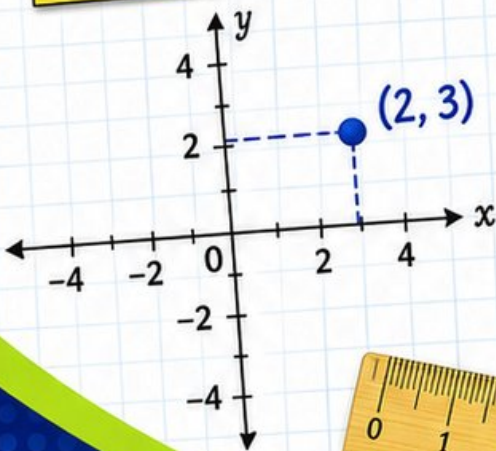
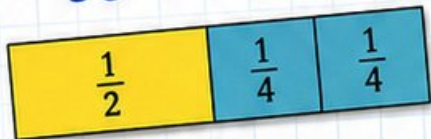
Iowa ISASP

GRADE 5

MATH PRACTICE TESTS

Mixed Practice Questions with Answer Key
for Students, Parents, and Teachers

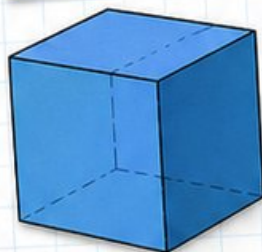
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

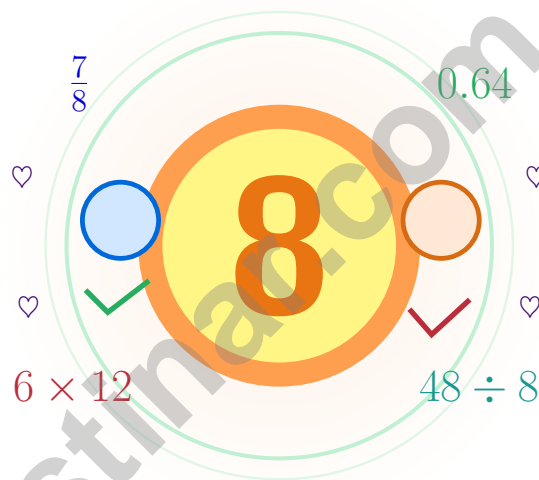
$$7 \times (12 - 5) = 49$$

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



8 Iowa ISASP Grade 5 Math Practice Tests

A eight-step expedition for curious Grade 5 thinkers



Eight full tests, a focused quick review, and helpful support that turns Grade 5 practice in The Hawkeye State into steady, confident growth from page one to the final check.

Jay Daie and Reza Nazari



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Strap In, Iowa – Eight-Test Journey

Eight full tests and a coach's voice on every page

Iowa Mathematicians, Read This First

This practice book is your steady companion for eight tests, not a place to be perfect. Strong math practice grows the way a cornfield grows – in tidy rows, with patience, and one steady season at a time.

Use these eight tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up across seven rounds.

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 strong habit for Iowa mathematicians: read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

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Scan me



From Cover to Final Test

A simple routine that turns practice into progress

Step 1: Step 1

Warm up with a quick review.

Spend a few minutes waking up your memory before the test begins.

Step 2: Step 2

Take one full practice test.

Work in a calm spot and focus on careful thinking before speed.

Step 3: Step 3

Check your work honestly.

Circle missed questions and notice which topics keep showing up.

Step 4: Step 4

Fix, reflect, and try again.

Read the explanation, repair the work, and bring that lesson into the next test.

A Good 8-Week Iowa Rhythm

| | |
|---------------|--|
| Week 1 | Take Test 1 and plant the first row carefully. |
| Week 2 | Take Test 2 and slow down on word problems. |
| Week 3 | Take Test 3 and lift fraction and decimal work. |
| Week 4 | Take Test 4 and pay close attention to labels and units. |
| Week 5 | Take Test 5 and compare your habits with your first test. |
| Week 6 | Take Test 6 and practice staying calm during tricky questions. |
| Week 7 | Take Test 7 and harvest your habits with calm, careful work. |
| Week 8 | Take Test 8 and finish the journey with calm, careful, confident 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)

1 gallon (gal) = 4 quarts (qt)

Metric

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

WEIGHT AND MASS

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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) A student calculates the volume of a box using only the length and width, forgetting to multiply by the height. The length is 9 cm, the width is 5 cm, and the height is 4 cm. What error was made?

- A. Calculated $9 + 5 + 4 = 18$ (perimeter formula)
- B. Calculated $9 + 5 = 14$ (used only two dimensions)
- C. Calculated $9 \times 5 \times 4 = 180$ (correct answer)
- D. Calculated $9 \times 5 = 45$ (missing height multiplication)

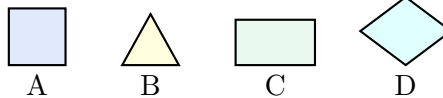
- 2) At a printing company, 2,288 booklets must be packed into boxes of 52 booklets. What is the quotient and remainder?

- A. 43 R52
- B. 44 R0
- C. 45 R8
- D. 46 R16

- 3) A line plot shows: 2 X's at $\frac{1}{4}$, 4 X's at $\frac{1}{2}$, 1 X at $\frac{3}{4}$. How many measurements total?

Record your answer in the space provided.

- 4) The figures below are labeled A-D. Which figure is a rectangle but not a square?



- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D



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- 1) Divide: $912 \div 19$
- A. 45 C. 50
 B. 48 D. 52
- 2) A banner is 2 yards long. How many inches is that? (1 yard = 3 feet, 1 foot = 12 inches)
- A. 36 inches C. 60 inches
 B. 48 inches D. 72 inches
- 3) A bag of flour weighs $\frac{5}{6}$ pound. You use $\frac{2}{5}$ of the bag. How much do you use? Give the answer in simplest form.
- A. $\frac{1}{3}$ pound C. $\frac{2}{3}$ pound
 B. $\frac{3}{11}$ pound D. $\frac{7}{11}$ pound
- 4) Two prisms have the same base area, 25 m^2 . One prism has height 4 m, and the other has height 3 m. What is the difference in their volumes?
- A. 100 m^3 C. 50 m^3
 B. 75 m^3 D. 25 m^3
- 5) Evaluate: $100 - [5 \times (6 + 4)]$
- A. 30 C. 50
 B. 45 D. 90
- 6) What is $7.83 \times 1,000$?
- A. 78.3 C. 7,830
 B. 783 D. 78,300



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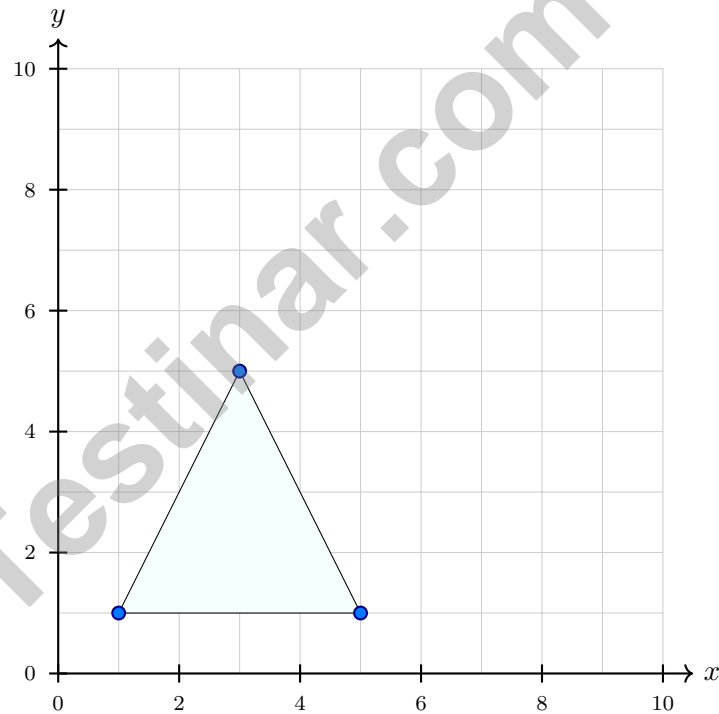


- 1) Two rectangular prisms have the same base (4 by 3 unit cubes), but different heights. Prism A is 2 tall, Prism B is 5 tall. How many more cubes does Prism B hold?

Prism A
base 4×3 , height 2

Prism B
base 4×3 , height 5

- A. 12 unit cubes more
- B. 24 unit cubes more
- C. 36 unit cubes more
- D. 10 unit cubes more
- 2) Three points are plotted at (1, 1), (5, 1), and (3, 5). Which ordered pair names the top point?



- A. (1, 1)
- B. (5, 1)
- C. (3, 5)
- D. (3, 1)



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1)

| | |
|----------------|---------------|
| 20×10 | 5×10 |
| 20×3 | 5×3 |

 = 25×13

This area model shows 25×13 broken into four partial products. What is the total product?

- A. 315 C. 335
 B. 325 D. 345

2) Find: $24.5 \div 10^2$.

Record your answer in the space provided.

3) The chart shows a pattern. What is the missing value?

| Expression | Value |
|-------------------|-------|
| 7×10 | 70 |
| 7×100 | 700 |
| $7 \times 1,000$ | 7,000 |
| $7 \times 10,000$ | ? |

- A. 7,000 C. 700,000
 B. 70,000 D. 7,000,000



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.C.4) The student found the base area ($9 \times 5 = 45$) but forgot to multiply by height. The correct volume is $9 \times 5 \times 4 = 180 \text{ cm}^3$.
- Choice B is correct.** (5.NBT.B.6) $2,288 \div 52 = 44$ remainder 0 (divides evenly). Check: $52 \times 44 = 2,288$.
- The correct answer is 7.** (5.MD.B.2) Each X represents one measurement. Add the X's at each value: $2 + 4 + 1 = 7$ measurements total.
- Choice C is correct.** (5.MD.B.2) 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 A is correct.** (5.G.B.4) The top and bottom sides are parallel, but the left and right sides are not parallel. So the figure has exactly one pair of parallel sides.
- Choice A is correct.** (5.NF.A.1) Write $10 = 9\frac{7}{7}$. Then $9\frac{7}{7} - 3\frac{2}{7} = 6\frac{5}{7}$.
- Choice C is correct.** (5.NF.A.1) A triangle with one angle wider than a right angle is an obtuse triangle.
- Choice D is correct.** (5.NBT.B.7) $14.80 - 6.37 = 8.43$. Borrow from ones place: $14.80 - 6.37 = 8.43$.
- Choice D is correct.** (5.NBT.B.7) The number line counts four equal hops of $\frac{1}{4}$. After four fourths, you land on $\frac{4}{4} = 1$.
- Choice A is correct.** (5.NBT.A.2) A power of 10 tells how many factors of 10 to use. $25 \times 10^5 = 25 \times 100,000 = 2,500,000$. This confirms the answer.
- Choice A is correct.** (5.NBT.A.2) $1 + \frac{3}{10} + \frac{6}{100} = 1 + 0.3 + 0.06 = 1.36$. The digit 1 is in the ones place, 3 in tenths, 6 in hundredths.
- Choice A is correct.** (5.MD.C.5) The overlap has $3 \times 4 = 12$ squares out of 60 total, so the fraction is $\frac{12}{60} = \frac{1}{5}$.
- Choice D is correct.** (5.NBT.A.1) Both numbers have the same ones, tenths, and hundredths digits. Compare thousandths: $6 < 9$, so $4.276 < 4.279$.
- Choice D is correct.** (5.OA.A.2) The phrase "three times as much" tells us to take the whole amount ($8 + 5$) and multiply it by 3. That gives $3 \times (8 + 5)$.
- Choice C is correct.** (5.MD.C.4) Multiply the three dimensions: $9 \times 4 \times 3 = 36 \times 3 = 108$. The volume is 108 cm^3 .
- Choice C is correct.** (5.MD.B.2) Add the hours shown by the marks: $3(\frac{1}{2}) + 4(\frac{3}{4}) + 3(1) + 2(1\frac{1}{4}) = 10$ hours.
- Choice C is correct.** (5.NBT.A.3) This addresses the misconception that more digits means a bigger number. Both equal 8 tenths or 80 hundredths.
- Choice B is correct.** (5.MD.A.1) $1 \text{ km} = 1,000 \text{ m}$. Multiply: $3.25 \times 1000 = 3250 \text{ m}$.
- Choice A is correct.** (5.MD.A.1) Pattern H is twice Pattern G: $3 \times 2 = 6$, $6 \times 2 = 12$, $9 \times 2 = 18$, $12 \times 2 = 24$, $15 \times 2 = 30$.
- Choices A, B are correct.** (5.NF.A.2) $\frac{3}{4} + \frac{1}{2} = 1\frac{1}{4}$, so A is true. Since $1\frac{1}{4}$ is more than 1, B is also true. C multiplies; D ignores the second trip.
- The correct answer is 2.** (5.G.A.2) For each point, $2 \div 1 = 2$, $4 \div 2 = 2$, and $6 \div 3 = 2$.
- Choice B is correct.** (5.G.A.2) Use the rectangular-prism volume formula: $10 \times 3 \times 3 = 90$. So the volume is 90 cubic inches.
- Choice C is correct.** (5.MD.C.5) Add: $3\frac{5}{12} + 1\frac{7}{12} = 4\frac{12}{12} = 5$.
- Choice A is correct.** (5.NF.A.1) Rewrite $\frac{3}{4}$ as $\frac{6}{8}$. Since $\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$, the missing addend is $\frac{1}{8}$.
- Choice A is correct.** (5.MD.C.5) Pens cost: $4 \times 2.25 = 9.00$ dollars. Pencils cost: $3 \times 1.75 = 5.25$ dollars. Total: $9.00 + 5.25 = 14.25$ dollars.
- Choice C is correct.** (5.NF.B.3) The one-tenth bar is divided among 3 students. So the matching equation is $\frac{1}{10} \div 3 = n$.
- Choice C is correct.** (5.NF.B.6) $\frac{5}{12} \approx \frac{1}{2}$ and $\frac{9}{17} \approx \frac{1}{2}$. So $\frac{5}{12} + \frac{9}{17} \approx \frac{1}{2} + \frac{1}{2} = 1$.
- Choice C is correct.** (5.G.A.1) For (2, 6): x-coordinate 2 means 2 units right; y-coordinate 6 means 6 units up.
- Choice B is correct.** (5.G.A.2) The x-coordinate is the number of apples (8), and the y-coordinate is the cost in dollars (4). So 8 apples cost \$4.



Champion in Training!

◇ What a season! You've completed 8 full practice tests, and that's the kind of training that builds real champions. Every test was a workout, and your math muscles are stronger today than they were before. Your stamina, focus, and accuracy have all leveled up. ◇

★ **Here's what every great coach knows:** the team that practices the most plays the best. You've put in the practice. You know the plays. You've handled the drills. Now it's almost game day, and you are ready. ★

Your Training Camp Stats

- **Math Stamina:** HIGH! You can stay focused for a full test.
- **Strategy Playbook:** LOADED! You have multiple ways to attack a problem.
- **Mistake Recovery:** STRONG! You can pick yourself up and keep going.
- **Game Day Mindset:** READY! You know how to stay calm under pressure.

Pre-game tip: the night before test day, get a great sleep. Eat a good breakfast. Bring a sharp pencil and a positive attitude. And remember—you have already trained for this. Trust your training.

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 Coaches (Game On!)

$45 \div 5 = ?$

PRACTICE TODAY.

$\frac{3}{5} + \frac{1}{10} = ?$



ACHIEVE TOMORROW!



$3^2 + 4^2 = 25$

This book includes **8** full-length **Grade 5** math practice tests to help students master essential skills, build confidence, and achieve success. Each test is carefully designed to reflect real math standards and cover a variety of question types with detailed answer explanations.

$7x - 4 = 17$

$1\frac{1}{2} + 2\frac{1}{3} = ?$

8 FULL-LENGTH MATH PRACTICE TESTS



REALISTIC PRACTICE

Tests mirror Grade 5 math standards and real assessment formats.



ANSWER KEY INCLUDED

Detailed answer explanations help students understand and learn.



BUILD CONFIDENCE & SKILLS

Strengthens problem-solving abilities and reinforces key math concepts.



IMPROVE & TRACK PROGRESS

Identify strengths and focus on areas that need improvement.



ACHIEVE SUCCESS

Boosts test readiness and helps students achieve their best results.

COVERS ALL KEY GRADE 5 MATH TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ Graphing & Data Analysis

...and More!



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