

10 COMPLETE Illinois IAR

GRADE 5 MATH PRACTICE TESTS

Standards-Based Review with
Mixed Practice and Detailed Answer Key



10 Complete Practice Tests

Build confidence and test readiness



Standards-Based Review

Covers key Grade 5 math standards



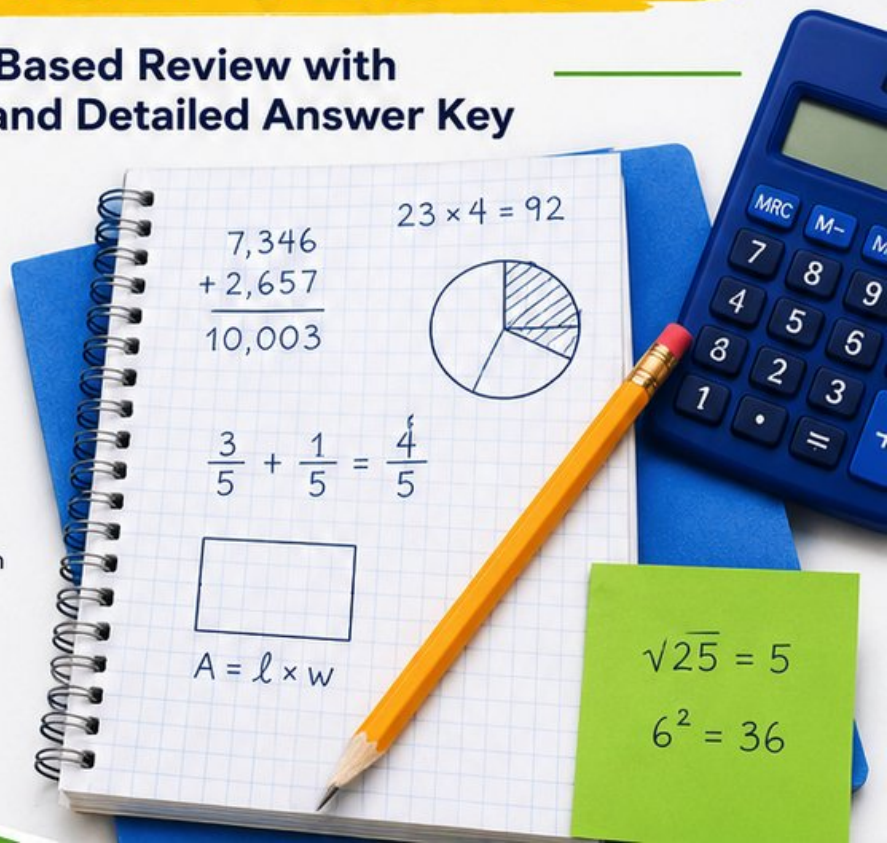
Mixed Practice

Variety of question types to strengthen skills



Detailed Answer Key

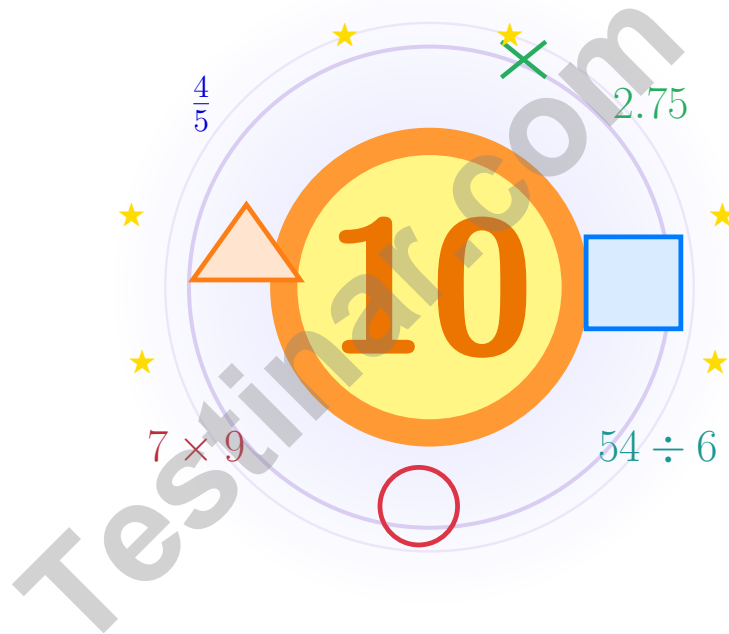
Step-by-step explanations for every question



PREPARE.
PRACTICE.
SUCCEED!

10 Illinois IAR Grade 5 Math Practice Tests

Bright review, thoughtful practice, and steady confidence for Grade 5



Ten full tests, a focused quick review, and student-friendly support that keeps practice clear and encouraging.

Jay Daie and Reza Nazari



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Welcome!

This book is a place to practice bravely and think clearly

Dear Grade 5 Mathematician

This book gives you ten chances to read carefully, solve thoughtfully, and build steady math confidence. Some problems will feel friendly right away. Some will take more patience. Both kinds help you grow.

The goal is not to feel perfect before you begin. The goal is to practice honest effort, learn from corrections, and notice how much stronger your thinking becomes over time.

Read

Slow down and understand the task.

Solve

Show clear steps and good choices.

Learn

Use mistakes as clues for what comes next.

A strong habit from the start: keep your work neat, estimate when it helps, write units carefully, and do not let one hard problem decide your mood for the whole page.



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How to Use This Book

A simple routine that turns practice into real progress

Step 1

Warm up with the quick review.

Spend a few minutes refreshing the ideas before the test begins.

Step 2

Take one full practice test.

Work in a calm spot and aim for careful thinking before speed.

Step 3

Check your work honestly.

Circle missed questions and notice which skills need another look.

Step 4

Fix and reflect.

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



A Good 10-Week Rhythm

Week 1	Take Test 1 and notice your starting strengths.
Week 2	Take Test 2 and slow down on word problems.
Week 3	Take Test 3 and sharpen multiplication and division checks.
Week 4	Take Test 4 and focus on fractions and decimals.
Week 5	Take Test 5 and watch your labels and units closely.
Week 6	Take Test 6 and practice calmer pacing.
Week 7	Take Test 7 and compare your habits with the earlier weeks.
Week 8	Take Test 8 and focus on tidy, checkable work.
Week 9	Take Test 9 and compare your progress with the way you worked in the earlier weeks.
Week 10	Take Test 10 and finish with steady, confident effort while using every strong habit you built.



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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)

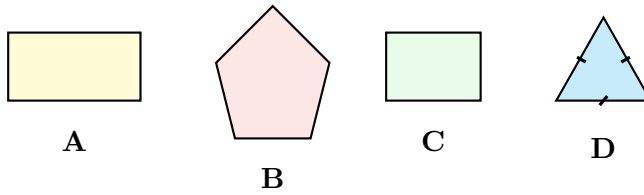
1 year = 12 months

1 day = 24 hours (hr)

1 year = 52 weeks



1) Which polygon is regular?



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

2) Evaluate: $100 - 4 \times 5 + 2$

- A. 82 C. 98
 B. 78 D. 480

3) Find: $\frac{7}{8} \times \frac{2}{3}$.

Record your answer in the space provided.

4) Multiply: $3 \times 2\frac{2}{5}$

- A. 8 C. $7\frac{1}{5}$
 B. $6\frac{2}{5}$ D. $7\frac{3}{5}$

5) Express $\frac{92}{100}$ as a decimal and word form.

- A. 0.92; ninety-two tenths C. 0.92; ninety-two hundredths
 B. 0.092; ninety-two thousandths D. 9.2; ninety-two tenths



6) A baker makes 456 cookies and packs them into boxes of 12. How many complete boxes can be made?

A. 36

C. 38

B. 37

D. 39

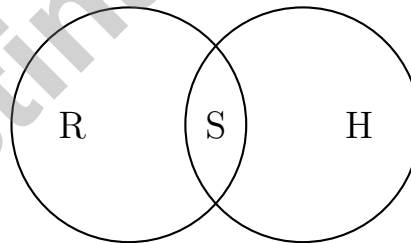
7) A solid figure has volume 30 cubic units. If it is 5 cubes long and 3 cubes wide, how tall is it?

Record your answer in the space provided.

8) In the standard Grade 5 hierarchy, a square is both a rectangle and a rhombus. The Venn diagram has one circle for rectangles and one circle for rhombuses:

Rectangles

Rhombuses



What type of quadrilateral should label S represent?

A. A pentagon

C. A triangle

B. A rectangle with unequal side lengths

D. A square



Grade 5 Mathematics Reference Materials

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

LENGTH

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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 $1,800 \div 100$?

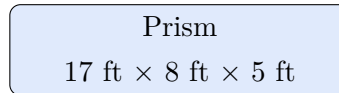
A. 1.8

B. 180

C. 18,000

D. 18

2) A rectangular prism has dimensions 17 feet, 8 feet, and 5 feet. What is the volume?



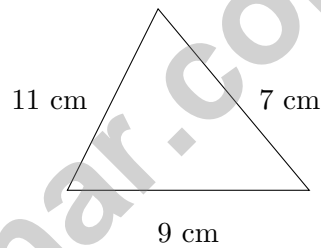
A. 540 ft^3

B. 620 ft^3

C. 680 ft^3

D. 750 ft^3

3) A triangle has sides of 9 cm, 11 cm, and 7 cm. What can you say based on its side lengths?



A. Isosceles; two sides are equal

B. Scalene; all sides are different

C. Equilateral; all sides are equal

D. Right; one angle is 90°

4) Find: $15.05 - 8.27$.

Record your answer in the space provided.



- 38) A pattern starts at 7 and adds 4 each step. What is the 5th term? Explain how you found it.

Record your answer in the space provided.

- 39) Match the expression with the context: A chef divides 7 cups of water into $\frac{1}{3}$ -cup servings for soup stock.

A. $7 \times \frac{1}{3}$

B. $7 \div \frac{1}{3}$

C. $7 - \frac{1}{3}$

D. $\frac{1}{3} \div 7$

- 40) The table shows four students' evaluations of the expression $10 + (3 \times 4) - 2$. Which student is correct?

Student	Answer
Alex	50
Bella	20
Carla	22
Dan	12

 A. Alex B. Bella C. Carla D. Dan

End of Practice Test

Nice work. Pause, breathe, and check your answers with care.



Grade 5 Mathematics

10

Questions: 40 Duration: No time limit

Calculator Policy: Calculators are not allowed



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.G.B.3) The matching tick marks show that triangle D has 3 equal sides. An equilateral triangle also has 3 equal angles, making it a regular polygon.
- Choice A is correct.** (5.OA.A.1) Multiply first: $4 \times 5 = 20$. Then move left to right through the subtraction and addition: $100 - 20 + 2 = 82$.
- The correct answer is $\frac{7}{12}$.** (5.NF.B.5b) Multiply across to get $\frac{14}{24}$. Both numbers are divisible by 2, so $\frac{14}{24} = \frac{7}{12}$.
- Choice C is correct.** (5.NF.B.5b) $3 \times 2\frac{2}{5} = 3 \times \frac{12}{5} = \frac{36}{5} = 7\frac{1}{5}$.
- Choice C is correct.** (5.NBT.A.3a) $\frac{92}{100}$ is expressed as the decimal 0.92 and read as “ninety-two hundredths”.
- Choice C is correct.** (5.NBT.B.6) $456 \div 12 = 38$ complete boxes. Check: $12 \times 38 = 456$.
- The correct answer is 2.** (5.MD.C.3b) $30 \div (5 \times 3) = 30 \div 15 = 2$.
- Choice D is correct.** (5.G.B.4) A square is both a rectangle and a rhombus, so it belongs in the intersection.
- Choice D is correct.** (5.OA.B.3) Pattern V is double Pattern U, then 1 more. When U is 4, $2 \times 4 + 1 = 9$.
- Choice B is correct.** (5.NBT.A.2) $0.25 \times 100 = 25$ miles (move decimal 2 places right).
- Choice C is correct.** (5.NBT.A.2) Multiplying by 1,000 means multiplying by 10^3 , so the decimal moves three places right. That makes statement C true.
- The correct answer is 5000.** (5.MD.A.1) $5 \times 1,000 = 5,000$ m. Each kilometer has 1,000 meters, so 5 kilometers has five groups of 1,000 meters.
- Choice A is correct.** (5.G.B.4) The definition of a trapezoid is a quadrilateral with exactly one pair of parallel sides. All other options are not always true.
- Choice D is correct.** (5.NBT.A.3b) All have 45 ones. Tenths: 45.506 has 5, 45.56 has 5, 45.065 has 0. Between first two, hundredths: 45.506 has 0, 45.56 has 6. So $45.56 > 45.506 > 45.065$.
- Choice B is correct.** (5.G.A.2) Point T is located 7 units to the right and 2 units up, giving coordinates (7, 2).
- Choice C is correct.** (5.NBT.A.2) A is true; B is true; C is false ($5,400 \div 100 = 54$); D is true.
- Choice A is correct.** (5.NF.B.4b) The blue region is 2 out of 5. The red region is 3 out of 4. The double-shaded overlap has 6 squares out of a total of 20, so the product is $\frac{6}{20}$.
- Choice A is correct.** (5.NBT.B.7) Combine grids: $8 + 9 = 17$ shaded squares, which is 0.17 (regroup to 0 ones + 1 tenth + 7 hundredths).
- Choice C is correct.** (5.MD.C.5) Choose the operation from the story, then keep the unit with the answer. Divide: $2,500 \div 125 = 20$ boxes. This confirms the answer.
- Choice D is correct.** (5.NF.B.5a) 20×1 is exactly 20, not greater than 20. The factor $1\frac{1}{20}$ is just a little more than 1, so $20 \times 1\frac{1}{20} = 21$ is the closest product above 20.
- Choices A, B are correct.** (5.NF.A.1) A is true because sixths are a common denominator. B is true because $4\frac{1}{6} - 1\frac{4}{6} = 2\frac{3}{6} = 2\frac{1}{2}$. C and D miscalculate.
- The correct answer is 576 in³.** (5.MD.C.5) Use length times width times height: $12 \times 6 \times 8 = 576$. The aquarium’s volume is 576 cubic inches.
- Choice B is correct.** (5.NF.A.2) Multiply numerator and denominator by 4: $\frac{3 \times 4}{4 \times 4} = \frac{12}{16}$.
- Choice A is correct.** (5.NF.B.7c) Each gallon fills 2 half-gallon containers. $8 \div \frac{1}{2} = 16$ containers.
- Choice A is correct.** (5.MD.C.5) The base area is 56 square centimeters. Since $336 \div 56 = 6$, the water is 6 cm deep.
- Choice A is correct.** (5.MD.B.2) The least value on the line plot is 1 hour, which has 1 X mark.
- Choice C is correct.** (5.NF.B.4) Three jumps of $\frac{1}{3}$ land at $\frac{3}{3} = 1$.
- Choice C is correct.** (5.MD.C.5a) One box: $5 \times 4 \times 3 = 60$ in³. Two boxes: $60 \times 2 = 120$ in³.
- Choice A is correct.** (5.NBT.B.7) Multiply as if the numbers were whole numbers: $36 \times 24 = 864$. The factors 3.6 and 2.4 have a total of $1 + 1 = 2$ decimal places, so place the decimal point two places from the right: $864 \rightarrow 8.64$. Therefore, $3.6 \times 2.4 = 8.64$.



Dear Hero of This Story,

◇ Once upon a time, there was a brave Grade 5 student who decided to take 10 practice tests. At first, the problems were tough. But the student kept showing up, kept trying, and kept learning. Slowly, the tough problems became easier. The student's confidence grew. By the time the 10th test was finished, that student had become the hero of their own math story. That student is you. ◇

★ **Storytellers know:** every great story has a hard middle. The hard middle is where the hero grows. You've lived your hard middle, and now your story is heading toward a strong ending: a confident test day. ★

Your Hero's Toolkit

- **Brave Heart:** You face hard problems instead of running.
- **Sharp Mind:** You think carefully before you act.
- **Steady Hand:** You write neatly and check your work.
- **Kind Spirit:** You're patient with yourself when you make mistakes.

Storyteller's tip: when you sit down on test day, remember the hero you've become. The chapters before this moment have made you stronger. Now, write your best chapter yet.

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 Storyteller (The Best Pages Are Ahead)

PRACTICE TODAY. MASTER TOMORROW.

Give your child the confidence to excel in **Grade 5 Math!**
This book includes **10 complete practice tests** designed to build strong skills, improve test readiness, and achieve success.



10

COMPLETE PRACTICE TESTS

- ✓ Realistic. Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.

THIS BOOK HELPS YOUR CHILD:



Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



Track Progress

Identify strengths and target areas with purposeful practice.



Achieve Success

Better preparation leads to higher scores and bright futures.

COVERS ALL ESSENTIAL TOPICS

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



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Aligned to Standards



Created by Educators



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