

# 3

# Illinois IAR

## GRADE 4

# MATH PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



**5 FULL-LENGTH  
PRACTICE TESTS**



**STANDARDS-ALIGNED  
REVIEW**



**MIXED PRACTICE  
QUESTIONS**



**ANSWER KEY  
INCLUDED**

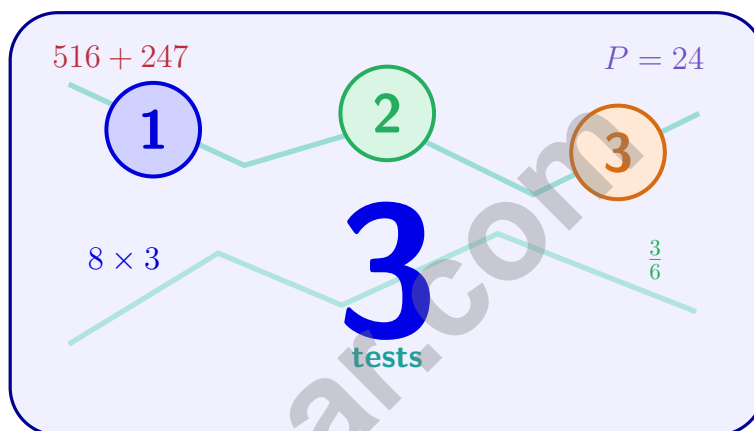
$$a^2 + b^2 = c^2$$

$$\frac{3}{4}$$



# 3 Illinois IAR Grade 4 Math Practice Tests

*Standards-Aligned Practice for Stronger Math Skills and Test Readiness*



Three 30-question trail tests packed with Grade 4 review, Illinois IAR strategy tips, answer keys, and step-by-step explanations that turn every miss into the next move.

**Jay Daie and Reza Nazari**



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# Welcome, Illinois Math Explorer!

Three steady rounds on the Prairie State math route

This book gives you three full Grade 3 practice tests for IAR. Each round uses prairie roads, skyline views, and strong number sense to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## Illinois Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

# How to Use This Book

A ten-session routine for Illinois IAR review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Prairie State math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Three tests, 90 questions, and a full IAR review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 1–3	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 1–3	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

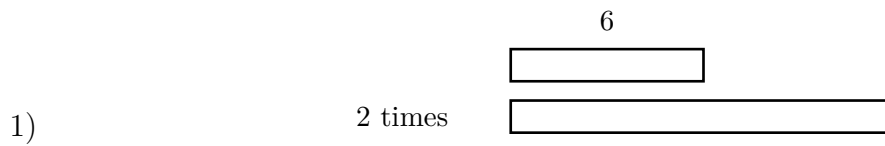
The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

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Miguel has 6 toy cars. Diego has 2 times as many toy cars. How many cars does Diego have?

- A. 8  C. 16
- B. 18  D. 12
- 2) Which turn is the largest?
- A.  $\frac{1}{2}$  turn  C.  $\frac{2}{5}$  turn
- B.  $\frac{1}{3}$  turn  D.  $\frac{1}{4}$  turn
- 3) A running path is 4 kilometers long. How many meters is this?
- A. 40  C. 4,000
- B. 400  D. 40,000
- 4) Write 0.42 as a fraction with denominator 100.



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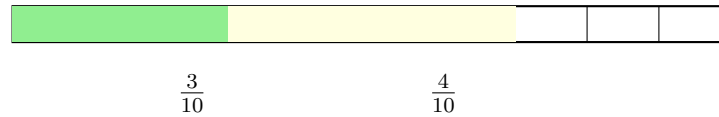


9) Ava's eraser costs \$0.32. Which fraction shows this price?

- A.  $\frac{32}{10}$   
 B.  $\frac{3}{2}$

- C.  $\frac{32}{100}$   
 D.  $\frac{32}{1000}$

remaining



10)

A garden bed uses  $\frac{3}{10}$  for vegetables and  $\frac{4}{10}$  for flowers. The rest will be herbs. What fraction is for herbs?

- A.  $\frac{3}{10}$   
 B.  $\frac{7}{10}$

- C.  $\frac{1}{10}$   
 D.  $\frac{6}{10}$

11) Find  $5 \times \frac{1}{8}$ .

12) A rectangle has a length of 12 m and a width of 7 m. What is its perimeter?

- A. 19 m  
 B. 38 m

- C. 84 m  
 D. 76 m



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1) When measuring an angle, which edge of the protractor must one ray of the angle lie along?

- A. The straight baseline edge       C. The left curved side  
 B. The rounded edge       D. Any edge works equally well

2) Complete the comparison:  $0.2$  \_\_\_\_\_  $0.21$

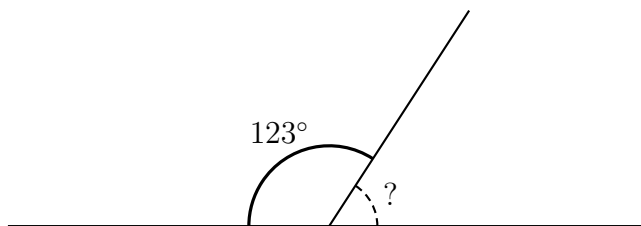
- A.  $>$        C.  $=$   
 B.  $<$        D. Cannot tell

3) Point  $T$  is between points  $R$  and  $S$ . If  $RT = 5$  and  $TS = 7$ , what is  $RS$ ?

4) What is  $3\frac{3}{4} - 1\frac{2}{4} - \frac{3}{4}$ ?

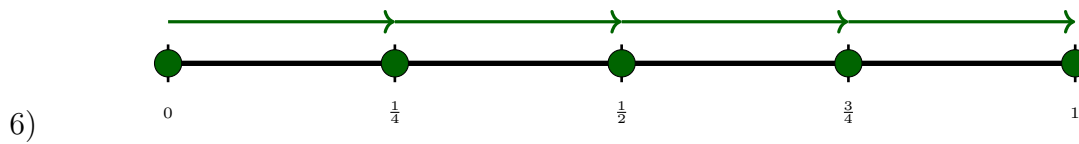
- A.  $\frac{2}{4}$        C.  $1\frac{3}{4}$   
 B.  $1\frac{2}{4}$        D.  $2\frac{1}{4}$

5) A straight line is marked at a point. On one side of the point, an angle measures  $123^\circ$ . What is the measure of the angle on the other side of the point?



- A.  $123^\circ$        C.  $180^\circ$   
 B.  $57^\circ$        D.  $90^\circ$





The number line shows 4 equal jumps of  $\frac{1}{4}$ . What multiplication is shown?

A.  $4 \times \frac{1}{4} = 1$

C.  $4 \times 1 = 4$

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

D.  $\frac{4}{4} = 4$

7) How many positive factors does 40 have?

8) What is  $2 \times \frac{4}{5}$ ?

A.  $\frac{8}{10}$

C.  $\frac{4}{10}$

B.  $\frac{6}{5}$

D.  $\frac{8}{5}$  or  $1\frac{3}{5}$

9) What is 87,543 rounded to the nearest hundred?

A. 88,000

C. 87,600

B. 87,540

D. 87,500

10) Tom has 8 red crayons. He has 3 times as many blue crayons as red crayons. How many blue crayons does Tom have?

A. 11

C. 32

B. 20

D. 24



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& answers

1) What is  $3,248 \div 8$  with remainders shown?

A. 404 r0

C. 405 r8

B. 407 r2

D. 406 r0

2) Which number rounds to 70,000 when rounded to the nearest ten thousand?

A. 64,999

C. 75,001

B. 74,500

D. 75,499

3) Noah had  $\frac{6}{12}$  of a pizza. He ate  $\frac{2}{12}$ . How much pizza is left?

A.  $\frac{8}{12}$

C.  $\frac{1}{12}$

B.  $\frac{4}{12}$

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

4) Which statement is true?

A. Parallel lines always meet at right angles

C. Parallel lines are the same as perpendicular lines

B. Perpendicular lines meet at right angles

D. Perpendicular lines never meet

5) A rectangle has a length of 13 inches and a width of 6 inches. What is its perimeter?

A. 19 in

C. 78 in

B. 38 in

D. 39 in



- 6) A letter has exactly one line of symmetry. How many lines of symmetry does it have?

- 7) What is  $33 \times 24$ ?

- A. 660                       C. 720  
 B. 840                       D. 792

- 8) Which is the same as  $4 \times \frac{1}{8}$ ?

- A.  $\frac{4}{8}$  or  $\frac{1}{2}$                        C.  $\frac{4}{12}$   
 B.  $\frac{1}{32}$                                D.  $\frac{8}{4}$

- 9) A company has 495,672 employees across all offices. How should this be written in word form?

- A. Four hundred ninety thousand, five hundred seventy-two       C. Four hundred thousand, ninety-five thousand, six hundred seventy-two  
 B. Forty-nine thousand, five hundred thousand, six hundred seventy-two       D. Four hundred ninety-five thousand, six hundred seventy-two

- 10) Zoe's basketball team scored 9 points in the first quarter. In the second quarter, they scored 2 times as many points. How many points did they score in the second quarter?

- A. 11                               C. 20  
 B. 16                               D. 18



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& answers

## Practice Test Answer Keys

**How to use this section with a Grade 4 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice D is correct.** (4.OA.A.2) The bar model shows Diego's bar is twice as long as Miguel's—2 groups of 6. So multiply:  $2 \times 6 = 12$  cars.
- Choice A is correct.** (4.MD.C.5) Compare the fractions:  $\frac{1}{2} = 0.5$ ,  $\frac{1}{3} \approx 0.33$ ,  $\frac{2}{5} = 0.4$ ,  $\frac{1}{4} = 0.25$ . The largest fraction is  $\frac{1}{2}$ .
- Choice C is correct.** (4.MD.A.1) Since 1 kilometer = 1,000 meters, multiply:  $4 \times 1,000 = 4,000$  m. The answer is **4,000** m.
- The correct answer is  $\frac{42}{100}$ .** (4.NF.C.5) The decimal 0.42 means 42 hundredths, so the fraction is  $\frac{42}{100}$ .
- Choice B is correct.** (4.MD.C.7) The diagram shows two angles meeting at one vertex. Add them together:  $28^\circ + 47^\circ = 75^\circ$ .
- Choice D is correct.** (4.NBT.B.4) Round each number to the nearest thousand:  $26,345 \approx 26,000$  and  $8,912 \approx 9,000$ . Subtract:  $26,000 - 9,000 = 17,000$ .
- Choice C is correct.** (4.MD.B.4) Count how many times  $\frac{2}{4}$  inch appears in the data: it shows up **3** times.
- Choice C is correct.** (4.OA.A.3) Three steps! Step 1: napkins left after Monday:  $96 - 24 = 72$ . Step 2: pack into boxes of 8:  $72 \div 8 = 9$  boxes. Step 3: add the new boxes:  $9 + 5 = 14$  boxes total.
- Choice C is correct.** (4.NF.C.5) The cost is \$0.32, which equals thirty-two cents or  $\frac{32}{100}$  of a dollar.
- Choice A is correct.** (4.NF.B.3) The garden bed is divided into sections shown in the picture. Step 1: Add the vegetables and flowers:  $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$ . Step 2: The rest is herbs:  $\frac{10}{10} - \frac{7}{10} = \frac{3}{10}$ .
- The correct answer is  $\frac{5}{8}$ .** (4.NF.B.4) Five eighths:  $5 \times \frac{1}{8} = \frac{5}{8}$ .
- Choice B is correct.** (4.MD.A.3) Perimeter is the distance around the rectangle. Use the formula  $P = 2\ell + 2w = 2(12) + 2(7) = 24 + 14 = 38$  m.
- Choice D is correct.** (4.OA.B.4) Find every number that divides 15 evenly. Pair them up:  $1 \times 15$  and  $3 \times 5$ . So the factor list is 1, 3, 5, 15. (Note that 1 and the number itself are always factors!)
- Choice B is correct.** (4.G.A.1) A ray always starts at a definite point. This one starts at *A*, goes through *B*, and keeps going forever in that same direction.
- Choice A is correct.** (4.MD.A.2) Flour weighs 32 ounces and sugar weighs 25 ounces. Subtract to find the difference:  $32 - 25 = 7$  ounces. The flour weighs **7** ounces more.
- Choice D is correct.** (4.NF.A.1) The denominator changes from 5 to 20. Divide:  $20 \div 5 = 4$ . So multiply the numerator by 4:  $4 \times 4 = 16$ .
- The correct answer is A, D.** (4.NBT.A.1) A is true: 5 is in the hundreds place. D is true: 4 is in the tens place ( $4 \times 10 = 40$ ). B, C, E are false. Answer: A and D. ✓
- Choice A is correct.** (4.G.A.2) The arrows clearly mark exactly one pair of parallel sides, which is the defining characteristic of a trapezoid. The other two sides are not parallel. The answer is **A**.
- Choice B is correct.** (4.MD.C.5) When an angle measures  $55^\circ$ , it is made of **55** one-degree angles.
- Choice A is correct.** (4.NF.B.3) Check both decompositions in choice A by adding numerators. First way:  $6 + 4 = 10$ , so  $\frac{6}{12} + \frac{4}{12} = \frac{10}{12}$  ✓. Second way:  $5 + 5 = 10$ , so  $\frac{5}{12} + \frac{5}{12} = \frac{10}{12}$  ✓. Both ways break  $\frac{10}{12}$  apart differently but equal the same total. *Why other options fail:* B's second pair sums to  $11/12$ ; C's second sum is  $11/12$ ; D's second sum is only  $9/12$ .
- Choice D is correct.** (4.NBT.B.5) Split 16:  $5 \times (10 + 6) = 50 + 30 = 80$  pages.
- Choice A is correct.** (4.MD.C.6) This angle measures about  $70^\circ$ . When we round to the nearest 10 degrees, it stays at  $70^\circ$  because  $70^\circ$  is right at the mark. The answer is **70** degrees.
- Choice D is correct.** (4.MD.C.5)  $\angle EDF$  correctly names the angle because the vertex, *D*, is the middle letter. The middle letter always tells us the vertex.
- Choice B is correct.** (4.NF.B.3) Add the wholes:  $2 + 1 = 3$ . Add the fractions:  $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$ . The total is  **$3\frac{2}{3}$**  cups.
- Choice C is correct.** (4.NF.B.4) Count the shaded (green) parts: there are 3 shaded parts. Count the equal parts: there are 4 total parts. So this is  $3 \times \frac{1}{4} = \frac{3}{4}$ .



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Math Detective at Work

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## Hi, Math Detective!

◇ You did such a great job! You finished 3 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

### Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

**Detective tip:** on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Detective Helper

# PRACTICE TODAY. SUCCEED TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, master key concepts, and gain the confidence they need to excel on any test.

With 3 full-length practice tests, a variety of question types, and detailed answer explanations, students get the review and practice they need to strengthen problem-solving skills and achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Confidence Building

★ CONFIDENCE TODAY.  
SUCCESS TOMORROW!

## WHAT STUDENTS WILL GAIN



### Stronger Math Skills

Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Test Confidence

Become familiar with test-style questions and formats.



### Prepare for Success

Build the confidence needed to do your best on test day.

## TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Decimals
- ✓ Measurement & Data
- ✓ Geometry & Shapes
- ✓ Perimeter & Area
- ✓ Word Problems
- ✓ Patterns & Algebraic Thinking
- ✓ And More!



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