

4

Illinois IAR

Grade 3

MATH

PRACTICE TESTS

Standards-Aligned Practice



STANDARDS-ALIGNED

Practice to build skills and boost confidence



4 FULL-LENGTH TESTS

Realistic questions to prepare for test day



ANSWER KEYS & EXPLANATIONS

Detailed solutions to learn and improve



4 Illinois IAR Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Four focused 30-question missions for Grade 3 math: number facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

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Welcome to the Illinois Math Launch

Four missions, careful work, and a stronger Grade 3 thinker



Read the mission. Show the work. Check the answer. Launch again.

To the Grade 3 Mission Leader

This book is a four-mission practice launch for the Illinois IAR. Each test gives you a fresh chance to multiply, divide, read graphs, compare fractions, measure, find area, and explain math in a way someone else can follow.

Illinois has prairie roads, lakefront views, and busy neighborhoods where math shows up daily. Good math uses the same habit: pause, check the details, and move forward with a steady plan.

Notice

Find the numbers, units, and question before choosing a path.

Model

Draw an array, number line, table, or quick equation.

Verify

Ask whether your answer fits the story and the unit.

Launch promise: I will slow down at the important moments, show the work I can, and use every miss as a clue for the next mission.

How to Use This Book

A four-mission routine for steady Grade 3 growth

1. Warm Up the System

Read the review pages first. Remind your brain how equal groups, fractions, clocks, graphs, and area models work.

2. Fly One Mission

Take one complete 30-question test. Keep your work neat enough that you can check it later.

3. Review the Flight

Use the answer key, then pause. A wrong answer is useful when you can name what happened.

4. Repair and Relaunch

Rework a few missed questions before starting the next test. The repair step is where the score begins to move.

A Four-Session Plan

Session 1	Take Test 1 and mark the topics that need attention.
Session 2	Take Test 2 and focus on showing every step clearly.
Session 3	Take Test 3 and watch for units, labels, and two-step problems.
Session 4	Take Test 4 and finish with calm, careful checking.

Best mission habit: After checking answers, write one sentence: “Next time I will pay attention to _____.”



Test Overview

What each Grade 3 math mission asks you to do

Each practice test has 30 questions. Across four tests, you will practice the kind of Grade 3 math thinking used on the Illinois IAR: reading carefully, choosing a strategy, doing accurate computation, and explaining enough work to make your answer clear.

Multiple Choice

Look for the best answer. Estimate first when you can, cross out choices that do not fit, and reread the question before you choose.

Open Response

Write the answer and show the reason. A good Grade 3 response may use a drawing, equation, table, number line, or a few clear words.

Math Ideas Inside the Four Tests

- multiplication, division, arrays, missing factors, and two-step word problems
- place value, rounding, addition, subtraction, and multiplying by tens
- unit fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shape categories

What strong IAR work looks like: the answer matches the question, the units make sense, and the work is clear enough to check.



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& answers

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1) What is 804 rounded to the nearest 10?

A. 800

C. 810

B. 804

D. 900

2) Lily paints a wall. She paints $\frac{4}{8}$ of the wall blue. Which fraction shows the same amount?

A. $\frac{1}{2}$

C. $\frac{3}{8}$

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

D. $\frac{2}{3}$

3) What is $36 \div 6$?

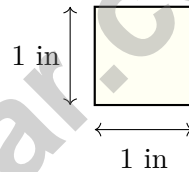
A. 5

C. 7

B. 6

D. 30

4) Which measurement describes a unit square in inches?



A. Side length 2 inches, area 2 square inches

C. Side length 1 inch, area 2 square inches

D. Side length 2 inches, area 4 square inches

B. Side length 1 inch, area 1 square inch

5) A composite shape breaks into three rectangles: one 5 units by 3 units, and two 2 units by 3 units each. What is the total area?

A. 15 sq units

C. 27 sq units

B. 6 sq units

D. 90 sq units

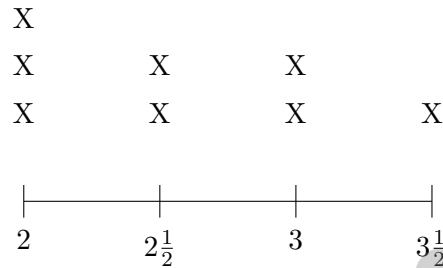


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6) Mia gives 3 friends 8 stickers each. How many stickers does she give in all?

- A. 11 stickers (adds $3 + 8$) C. 21 stickers (off by one group: 3×7)
 B. 17 stickers (counts partial: $8 + 8 + 1$) D. 24 stickers

7) A line plot shows button diameters in inches: $2, 2\frac{1}{2}, 3, 3\frac{1}{2}$.



What is the most common button diameter?

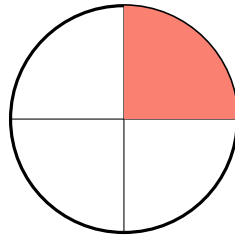
- A. 2 inches C. 3 inches
 B. $2\frac{1}{2}$ inches D. $3\frac{1}{2}$ inches
- 8) On a number line from 0 to 2 divided into fourths, how many fourths are there in total?

9) A tiled rectangle has two parts: $10 \times 3 = 30$ and $10 \times 7 = 70$. Which expanded distributive equation is correct?

- A. $10 \times (3 + 7) = 10 + 10 = 20$ C. $10 \times 3 + 7 = 37$
 B. $(10 \times 3) + (10 \times 7) = 30 + 70 = 100$ D. $3 + 7 = 10$



10) Look at the picture. The circle is divided into equal parts.



What unit fraction is shaded?

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

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

11) A zoo keeper has 36 pounds of food. He divides it equally among 4 animals. How many pounds of food does each animal get?

- A. 9
 B. 8

- C. 32
 D. 40

12) A rectangular field is 9 meters long and 5 meters wide. How many square meters is the field?

- A. 14 square meters
 B. 45 square meters

- C. 40 square meters
 D. 28 square meters



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1) Round 95 to the nearest 10. (Hint: This is a rollover case where the tens digit becomes 0.)

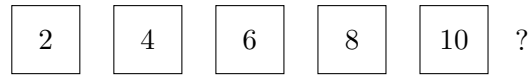
A. 90

C. 100

B. 95

D. 110

2)



Which number comes next?

A. 11

C. 14

B. 16

D. 12

3) What whole number is equal to $\frac{4}{4}$?

A. 1

C. 4

B. 2

D. 0

4) A picture graph shows crayons. Each crayon symbol is 2 crayons. If there are 6 symbols in total and we remove 2 symbols, how many crayons remain?

A. 4

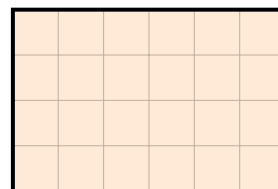
C. 10

B. 8

D. 12

5) This rectangle on a grid has dimensions labeled.

4 units



6 units

What is the area of the rectangle?

A. 24 sq units

C. 10 sq units

B. 20 sq units

D. 28 sq units



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6)

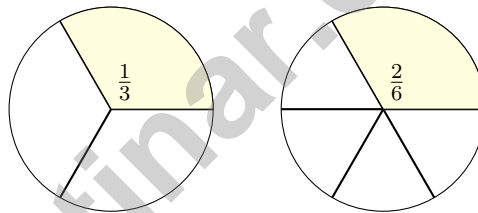


This is a 6×1 grid. How many unit squares are shown?

- A. 5 unit squares C. 7 unit squares
 B. 6 unit squares D. 8 unit squares

7) Mia has some coins. She splits them equally into 6 groups. Each group has 8 coins. How many coins did Mia have to start?

8) Which fraction is equivalent to $\frac{2}{6}$?



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

9) Which symbol makes this true? $\frac{1}{2}$ _____ $\frac{1}{4}$

- A. < C. =
 B. > D. None of these

- 1) Which shows the distributive property for $4 \times (6 + 1)$?
- A. $(4 \times 6) + (4 \times 1) = 24 + 4 = 28$ C. $(4 + 6) \times (4 + 1) = 10 \times 5 = 50$
 B. $4 \times 7 = 28$ D. $(4 + 6) + (4 + 1) = 14$
- 2) Which missing-addend number sentence matches this situation? “Eli had 350 points. After losing some points, he has 127 points left. How many points did he lose?”
- A. $127 + ? = 350$ C. $350 - 127 = 127$
 B. $350 + 127 = ?$ D. $? - 350 = 127$
- 3) A teacher says: “If a number rounds to 500 when rounded to the nearest 100, it must be at least 450. Is the teacher correct? Why or why not?”
- A. Yes, the teacher is correct C. No, numbers as low as 400 can round to 500
 B. No, numbers from 450 to 549 round to 500
 D. No, the rule only works for even numbers
- 4) There are 45 pencils. They are shared equally among 9 students. How many pencils does each student get?
- A. 4 C. 6
 B. 7 D. 5
- 5) A line plot shows test scores: 80 points twice, 81 points once, 82 points once, and 83 points three times. How many scores occur exactly once?



Practice Test Answer Keys

How to use this section with a Grade 3 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

- 1) **Choice A is correct.** **(3.NBT.A.1)** The ones digit is 4. Since $4 < 5$, round down: 804 rounds to 800.
- 2) **Choice A is correct.** **(3.NF.A.3a)** $\frac{4}{8} = \frac{1}{2}$. Both represent one-half of the wall.
- 3) **Choice B is correct.** **(3.OA.C.7)** $36 \div 6 = 6$ because $6 \times 6 = 36$. Choice D (30) is $36 - 6$, a subtraction mistake instead of division.
- 4) **Choice B is correct.** **(3.MD.C.5a)** A unit square always has a side length of 1 unit and area of 1 square unit, so 1 inch by 1 inch gives area 1 square inch.
- 5) **Choice C is correct.** **(3.MD.C.7d)** First: $5 \times 3 = 15$ sq units. Two others: $2 \times 3 = 6$ each. Total: $15 + 6 + 6 = 27$ sq units.
- 6) **Choice D is correct.** **(3.OA.A.1)** 3 friends with 8 stickers each means 3 groups of 8. So $3 \times 8 = 24$ stickers in all.
- 7) **Choice A is correct.** **(3.MD.B.4)** The most common diameter is 2 inches because it has 3 X's, which is more than any other value.
- 8) **The correct answer is 8.** **(3.NF.A.2b)** Each unit from 0 to 1 has 4 fourths. From 0 to 2 is 2 units, so $2 \times 4 = 8$ fourths total.
- 9) **Choice B is correct.** **(3.MD.C.7c)** The expanded distributive equation adds the two smaller rectangle areas: $(10 \times 3) + (10 \times 7) = 30 + 70 = 100$.
- 10) **Choice A is correct.** **(3.NF.A.1)** The circle is divided into 4 equal parts. One part is shaded, so the unit fraction is $\frac{1}{4}$ (one-fourth).
- 11) **Choice A is correct.** **(3.OA.A.3)** Divide: $36 \div 4 = 9$ pounds per animal.
- 12) **Choice B is correct.** **(3.MD.C.5)** Multiply length by width: $9 \times 5 = 45$ square meters.
- 13) **Choice C is correct.** **(3.MD.C.7a)** Visual grid: 4 wide \times 5 tall = 20 square units.
- 14) **Choices A and D are correct.** **(3.NF.A.3)** $\frac{2}{8}$ and $\frac{1}{4}$ both name one-fourth of a whole. The other choices are not equivalent to $\frac{1}{4}$.
- 15) **The correct answer is 20 square inches.** **(3.MD.C.7b)** Area = length \times width, so $5 \times 4 = 20$ square inches.
- 16) **Choice C is correct.** **(3.MD.A.1)** $2 : 18 + 22 \text{ min} = 2 : 40 \text{ PM}$.
- 17) **Choice C is correct.** **(3.MD.C.5b)** Count the rows: 4 rows with 5 unit squares in each row. Total: $5 + 5 + 5 + 5 = 20$ unit squares. Area is 20 square units.
- 18) **Choice D is correct.** **(3.OA.D.9)** Skip counting by 2 always gives even numbers: 2, 4, 6, 8, 10, ...
- 19) **Choice D is correct.** **(3.OA.A.2)** Measurement division: $40 \div 5 = 8$. There are 8 groups of 5 in 40.
- 20) **Choice D is correct.** **(3.MD.C.7)** The grid shows 5 columns and 2 rows. Area = $5 \times 2 = 10$ square units. You can also count: $5 + 5 = 10$ (two rows of five).
- 21) **Choice A is correct.** **(3.MD.A.2)** 800 g is more than 500 g, so the left side is heavier.
- 22) **Choice B is correct.** **(3.NF.A.3d)** CRITICAL: Fraction comparisons are ONLY valid when both fractions describe the same-size whole. Since pizza B is bigger than pizza A, $\frac{1}{4}$ of the smaller pizza may actually be bigger than $\frac{1}{6}$ of the larger pizza. We cannot compare them. Standard 3.NF.A.3.d requires recognizing that comparisons are valid only when the two fractions refer to the same whole.
- 23) **Choice B is correct.** **(3.G.A.1)** A rhombus with angles that are not right angles has 4 equal sides but no right angles, so it is a rhombus but not a square.
- 24) **Choice A is correct.** **(3.G.A.2)** One shaded part out of three equal parts is $\frac{1}{3}$.
- 25) **Choice A is correct.** **(3.NBT.A.2)** Subtract: $300 - 145 = 155$. Ones: $0 - 5$ requires regrouping, so $10 - 5 = 5$. Tens: $9 - 4 = 5$ (after regrouping). Hundreds: $2 - 1 = 1$ (after regrouping).
- 26) **Choice B is correct.** **(3.NF.A.2)** $\frac{3}{6}$ and $\frac{1}{2}$ mark the same point: the middle of the line.
- 27) **Choice D is correct.** **(3.OA.B.6)** $63 \div 9 = \square$ means $\square \times 9 = 63$. Since $7 \times 9 = 63$, the answer is 7.
- 28) **The correct answer is 4.** **(3.NF.A.3b)** The numerator doubles from 2 to 4.
- 29) **Choice C is correct.** **(3.MD.B.3)** Multiply: $4 \times 5 = 20$ pencils.



Notes From Your Math Builder

Hi, Math Builder!

◇ Through 4 practice tests, you built your math house brick by brick. The walls are strong. The roof is on. You are ready for anything test day brings. ◇

★ **Builders know:** good plans make strong houses. You learned to plan, then build. That helps with any problem. ★

Builder's Tools

- **Foundation:** ROCK SOLID. Math facts are in place.
- **Frame:** STRONG. You can break problems into parts.
- **Walls:** TIDY. Your work is neat and clear.
- **Roof:** DONE. You always answer the question.

Builder tip: on test day, build each answer like a tiny house. Read first. Plan next. Do the math. Then check!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Builder

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Build Skills. Achieve More.

This book gives **Grade 3** students the focused practice they need to master math concepts with confidence.

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