

4

Minnesota MCA III

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 Minnesota MCA-III 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 Minnesota 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 Minnesota MCA-III. 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.

Minnesota has lake paths, snowy mornings, and maps where every marker helps. 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 Minnesota MCA-III: 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 MCA-III work looks like: the answer matches the question, the units make sense, and the work is clear enough to check.



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1) Which equation is false?

A. $7 \times (2 + 8) = 7 \times 2 + 7 \times 8$

C. $5 \times (6 + 1) = 5 \times 6 + 5 \times 1$

B. $9 \times (3 + 4) = 9 \times 3 + 9 \times 4$

D. $6 \times (5 + 2) = 6 \times 5 - 6 \times 2$

2) There are 7 groups of students. Each group has 6 students. How many students are there in total?

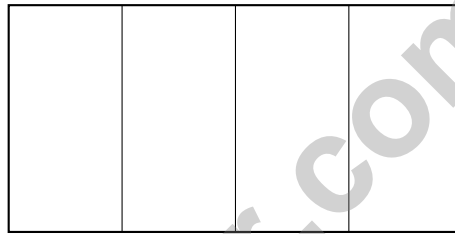
A. 13

C. 36

B. 48

D. 42

3) A rectangle is divided into 4 equal parts. What fraction of the rectangle is each part?



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

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

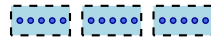
B. $\frac{1}{3}$

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

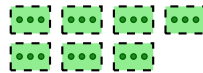


4) Which picture shows 21 items divided equally into 3 groups?

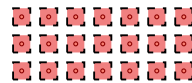
A. Three groups of five



B. Seven groups of three



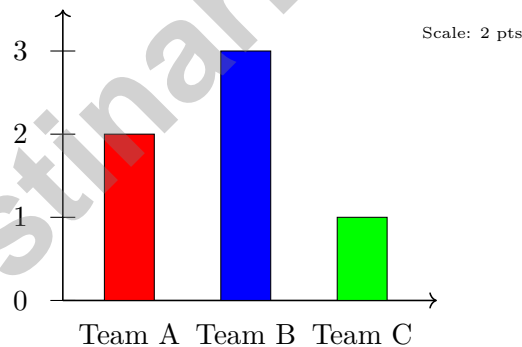
C. Twenty-one groups of one



D. Three groups of seven



5) A bar graph shows points scored. Scale is 2 points per unit. Read the three bars.



A. Total points: 16

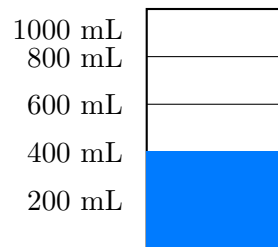
C. Total points: 12

B. Total points: 14

D. Total points: 18



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Water in Pitcher

1)

The pitcher shows 400 mL of water. Ben adds 600 mL more. How much water is in the pitcher now?

- A. 600 mL C. 1000 mL
 B. 800 mL D. 1200 mL

2) Look at the shaded rectangles. Are they equivalent?

Rectangle A: $\frac{1}{3}$ Rectangle B: $\frac{2}{6}$

- A. Yes, they are equivalent C. No, Rectangle B is larger
 B. No, Rectangle A is larger D. They cannot be compared

3) Eli knows that $72 \div 8 = 9$. Which multiplication fact helps him check this division?

- A. $8 \times 9 = 72$ C. $9 \times 9 = 81$
 B. $7 \times 9 = 63$ D. $8 \times 8 = 64$

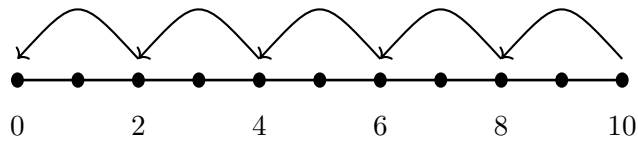
4) A sheet of paper is folded to make 2 equal halves. What unit fraction is one half?

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



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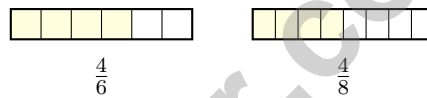
5) Which number sentence is shown by the repeated subtraction on the number line?



- A. $10 \div 2 = 5$
 C. $10 - 2 = 8$
 B. $10 \div 5 = 2$
 D. $2 \times 5 = 10$

6) Two cakes are the same size. Cake A is cut into 2 slices with 1 eaten. Cake B is cut into 6 slices with 3 eaten. How much cake is left?

- A. The same amount is left.
 C. Cake B has more left.
 B. Cake A has more left.
 D. Cannot compare.



7)

Compare $\frac{4}{6}$ and $\frac{4}{8}$. Which is true?

- A. $\frac{4}{6} > \frac{4}{8}$ (same numerator, $6 > 8$)
 D. $\frac{4}{8} > \frac{4}{6}$ (more pieces means more amount)
 B. $\frac{4}{6} < \frac{4}{8}$ ($8 > 6$)
 C. $\frac{4}{6} = \frac{4}{8}$

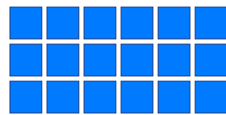


6) Which of the following is true about a square?

- A. It is a rectangle and a rhombus C. It is a triangle
 B. It is a trapezoid D. It has no right angles

7) Ava has two arrays that show the commutative property. Which is the matching pair?

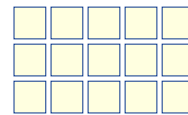
Ava's array:
3 rows, 6 columns



A
6 rows, 3 col



B
3 rows, 5 col



8)

Hundreds	Tens	Ones	Total	?
----------	------	------	-------	---

Lily has 3 hundreds, 2 tens, and 6 ones. Her friend gives her 1 hundred, 4 tens, and 7 ones. What is the total?

- A. 473 C. 513
 B. 503 D. 523



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

- Choice D is correct.** **(3.MD.C.7c)** This equation uses subtraction instead of addition. The correct form is $6 \times (5 + 2) = 6 \times 5 + 6 \times 2$.
- Choice D is correct.** **(3.OA.A.3)** Multiply: 7 groups \times 6 students per group = 42 students.
- Choice C is correct.** **(3.G.A.2)** When a shape is divided into 4 equal parts, each part is $\frac{1}{4}$ of the whole.
- Choice D is correct.** **(3.OA.A.2)** $21 \div 3 = 7$. The picture shows 3 equal groups, each with 7 items.
- Choice C is correct.** **(3.MD.B.3)** Team A: $2 \times 2 = 4$. Team B: $3 \times 2 = 6$. Team C: $1 \times 2 = 2$. Total: $4 + 6 + 2 = 12$.
- Choice C is correct.** **(3.NF.A.2b)** $\frac{6}{6}$ means six sixths, which make one whole. The point is at 1.
- Choice C is correct.** **(3.NF.A.3c)** $\frac{8}{8} = 1$ whole. When numerator = denominator, you have one whole unit.
- The correct answer is $\frac{6}{8}$.** **(3.NF.A.3b)** Multiply the numerator and denominator by 2: $\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$.
- Choice A is correct.** **(3.MD.B.4)** The value with the most X's is the mode. At 2 inches, there are 3 X's. This is more than any other value.
- Choice A is correct.** **(3.MD.A.1)** The minute hand on 2 means 10 minutes. The hour hand on 7 means 7 o'clock. So the time is 7 : 10.
- Choice A is correct.** **(3.OA.D.8)** Step 1: Team A total: $4 + 5 = 9$ goals. Step 2: How many more than Team B: $9 - 6 = 3$ more goals. Choices A and B both work (parentheses clarify order), but A is clearer.
- Choice A is correct.** **(3.MD.C.5)** If the area is 25 square inches and it is a square, then $5 \times 5 = 25$, so each side is 5 inches.
- Choices A and B are correct.** **(3.MD.A.2)** Choices A and B are both true. Choice C is false: 2500 g is greater than 2000 g. Choice D requires unit conversion (not Grade 3). Choice E is false: 750 mL is less than 1000 mL.
- Choice C is correct.** **(3.MD.C.5a)** The grid is $3 \times 4 = 12$ unit squares.
- Choice A is correct.** **(3.NF.A.2a)** When the interval from 0 to 1 is split into 5 equal parts, each part has length $\frac{1}{5}$.
- Choice A is correct.** **(3.G.A.1)** A rectangle has two pairs of parallel sides: the top and bottom sides are parallel, and the left and right sides are parallel to each other.
- Choice A is correct.** **(3.OA.A.4)** Multiply: $6 \times 8 = 48$, so the divisor is 8.
- The correct answer is 24 unit squares.** **(3.MD.C.5b)** Count the rows: 4 rows. Count across: 6 unit squares per row. Total: $6 + 6 + 6 + 6 = 24$ unit squares cover the rectangle.
- Choice D is correct.** **(3.NF.A.3a)** $\frac{3}{6} = \frac{1}{2}$. Both mark the halfway point on a number line.
- Choice A is correct.** **(3.NBT.A.2)** For $405 - 189$, the standard algorithm with regrouping (forming 3 hundreds 9 tens from 4 hundreds 0 tens) is most direct. Count-up (C) requires many jumps; estimation (D) loses precision; place-value (B) requires tracking three separate subtractions. The algorithm minimizes errors for this problem.
- Choice C is correct.** **(3.NF.A.2)** On the number line, $\frac{4}{6}$ is to the right of $\frac{3}{6}$ (which equals $\frac{1}{2}$), so $\frac{4}{6} > \frac{1}{2}$.
- Choice A is correct.** **(3.OA.B.5)** $(2 \times 5) \times 3$ makes 10 first because $2 \times 5 = 10$. Then $10 \times 3 = 30$.
- The correct answer is 48.** **(3.OA.D.9)** The row for 6 increases by 6 each time because we multiply 6 by 1, 2, 3, 4, etc. So $6 + 6 = 12$, then $12 + 6 = 18$. The eighth product is 48, so $6 \times 8 = 48$.
- Choice B is correct.** **(3.NF.A.3d)** Same numerator (1): eighths divide the whole into 8 tiny pieces (each piece is small), fourths divide into 4 larger pieces. One eighth (1 tiny piece) < one fourth (1 larger piece). Rule: same numerator, larger denominator means smaller pieces.
- Choice B is correct.** **(3.MD.C.7)** Area = $2 \times 5 = 10$ square feet.
- Choice D is correct.** **(3.NBT.A.3)** Skip count by 10s: 10, 20, 30. There are 3 groups of 10 stars, so $3 \times 10 = 30$ stars total.
- 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.
- Choice A is correct.** **(3.OA.B.6)** There are 20 toy cars with 5 in each group, so $20 \div 5 = 4$ groups.
- Choice B is correct.** **(3.MD.C.7b)** Area = length \times width = $9 \times 8 = 72$ square feet. Choice A (17) is the sum; C (64) is 8×8 ; D (63) is 9×7 .



Hi, Strong Climber!

◇ You climbed all 4 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

Guide's tip: on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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

Jay Daie

Your Math Trail Guide

Build Skills. Achieve More.

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

What's Inside?



Standards-Aligned Practice

Questions designed to match Grade 3 math standards.



Variety of Question Types

Build skills with multiple formats and challenges.



Real-World Applications

Engaging problems that connect math to life.



Step-by-Step Progress

Track improvement and see growth over time.



Build Skills & Boost Confidence

Strengthen understanding and perform better.

COVERS ALL ESSENTIAL 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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