

# 3

# Minnesota

# MCA III

## GRADE 3

# MATH

## PRACTICE TESTS

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Standards-Aligned  
Practice for Stronger  
Math Skills and  
Test Readiness



Build Confidence  
with Targeted Practice



Strengthen Skills  
in Key Math Concepts



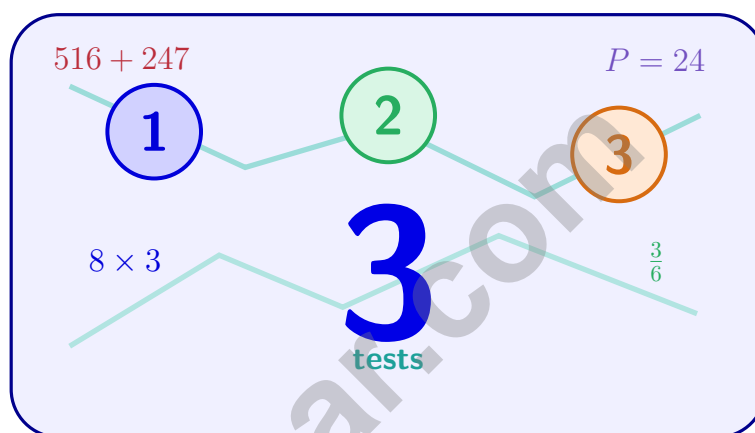
Improve Test Readiness  
with Realistic Practice

Be Ready.  
Do Your Best!



# 3 Minnesota MCA-III Grade 3 Math Practice Tests

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



Three 30-question trail tests packed with Grade 3 review, Minnesota MCA-III 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 to the Minnesota Math Trail

Three tests, one trail, and a stronger Grade 3 thinker at the end



## To the Grade 3 Trail Scout

This book is your practice trail for the Minnesota MCA-III. You will multiply and divide, read graphs, work with fractions, measure time, find area, and explain your thinking – one trail marker at a time.

Some problems will feel quick, like a clear stretch of wide open trail. Some will ask you to slow down, draw, count, or try again. That slow part is where strong math grows. Every page gives your brain another chance to spot, choose, and build.

### Spot

Read carefully and find what the problem is really asking.

### Sketch

Use numbers, arrays, number lines, or labels to make your thinking visible.

### Signal

Check that your answer makes sense before you wave the next question on.

**Trail promise:** I will read like a tracker, sketch like a planner, and check like a careful scout. I do not have to be perfect to keep moving forward.

# How to Use This Book

A four-step trail plan that turns practice into progress

## Step 1: Pack Your Pack

**Read the Quick Review first.**  
Wake up the Grade 3 ideas you will need before you set foot on the trail.

## Step 2: Hit the Trail

**Take one full test.**  
Thirty questions. Pencil sharp, work shown, calm pace – one marker at a time.

## Step 3: Campfire Check

**Check answers honestly.**  
Circle missed questions. Star any problem that felt confusing – those are tomorrow’s clues.

## Step 4: Track Back

**Fix a few mistakes.**  
Read the explanation, rework the problem, and carry that lesson up the next stretch of trail.

## A Three-Week Trail Plan

<b>Week 1</b>	Hike Test 1. Map what feels strong and what needs a second look.
<b>Week 2</b>	Hike Test 2. Sharpen the habits: read slow, sketch the model, label every number.
<b>Week 3</b>	Hike Test 3. Bring everything – facts, models, checks, and calm focus.

**Best trail habit:** Do not only ask, “What did I score?” Ask, “What did I learn how to do better?”



# Test Overview

## What waits on the trail and what each practice test builds

Each practice test has 30 questions. Together they walk you through the kind of math thinking the Minnesota MCA-III asks Grade 3 students to use: read carefully, choose a strategy, show work, and check whether an answer makes sense.

### Selected-Response Questions

Pick the best answer from the choices. Strong scouts estimate first, cross out answers that cannot be right, and reread the question before circling.

### Open-Ended Questions

Write the answer and show the thinking. A clear response uses neat numbers, helpful labels, and a short model or explanation.

### Grade 3 Ideas You Will Meet on the Trail

- multiplication, division, arrays, equal groups, and fact fluency
- rounding, adding, subtracting, and multiplying by multiples of 10
- 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 shapes
- two-step word problems and explaining a solution path

**What strong MCA-III work looks like:** the scout reads the whole problem, picks a sensible strategy, writes numbers neatly, labels the answer, and checks that the answer truly fits the question.



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# Table of Contents

★ Practice Test 1	_____	16
★ Practice Test 2	_____	27
★ Practice Test 3	_____	39
Practice Test Answer Keys	_____	50
Practice Test Answers and Explanations	_____	53



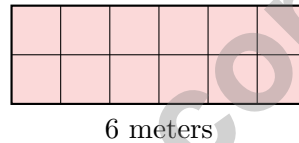
5) A picture graph shows coins saved. Each symbol is 5 coins. Ty saved 6 symbols, Kim saved 8 symbols. How many fewer coins does Ty have than Kim?

- A. 2 coins
- B. 10 coins
- C. 15 coins
- D. 30 coins

6) How many vertices (corners) does a quadrilateral have?

- A. 2
- B. 3
- C. 6
- D. 4

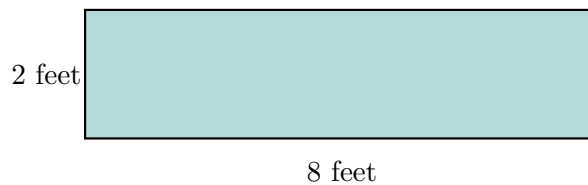
7) Lily has a rectangular garden that is 6 meters long and 2 meters wide. If she uses 1-meter by 1-meter tiles (unit squares), how many tiles does she need?



- A. 8 tiles
- B. 10 tiles
- C. 12 tiles
- D. 14 tiles

8) A line plot displays flower stem heights in inches: 10,  $10\frac{1}{2}$ , 11,  $11\frac{1}{2}$ . There is 1 X at 10 inches, 3 X's at  $10\frac{1}{2}$  inches, 2 X's at 11 inches, and 4 X's at  $11\frac{1}{2}$  inches. How many stems total?

- A. 8
- B. 9
- C. 10
- D. 11



9)

A rectangular bench top is 8 feet long and 2 feet wide. What is the area?

- A. 10 sq ft
- B. 16 sq ft
- C. 20 sq ft
- D. 40 sq ft



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10) Find  $45 \div 5$ . (Hint: Think of the related multiplication fact.)

11) Round 662 to the nearest 10.

A. 660

C. 665

B. 662

D. 670

12) Which number sentence matches “How many groups of 4 are in 16?”

A.  $4 + 16$

C.  $4 \times 16$

B.  $16 - 4$

D.  $16 \div 4$

13) How many unit fractions of  $\frac{1}{6}$  are in the total of  $\frac{1}{6} + \frac{1}{6}$ ?

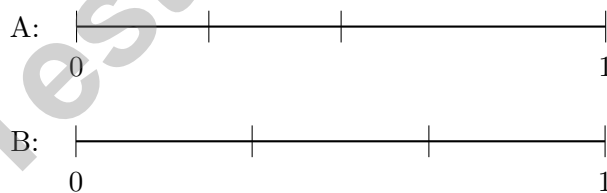
A. 1

C. 6

B. 2

D. 12

14) Which number line correctly divides from 0 to 1 into 3 equal parts?



A. Option A

C. Neither

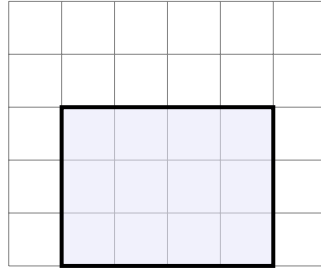
B. Option B

D. Both





- 4) Look at the grid. What is the area of this shaded region?



- A. 9 square units                       C. 10 square units  
 B. 12 square units                     D. 15 square units
- 5) Noah splits a number line from 0 to 1 into 2 equal parts. Then he splits each part in half again. How many equal parts are there now?
- A. 2     C. 4  
 B. 3     D. 8
- 6) A  $7 \times 6$  rectangle is shown with one dimension split. Which equation matches?
- A.  $7 \times 6 = 7 \times (4 + 2) = (7 \times 4) + (7 \times 2) = 28 + 14 = 42$                        C.  $7 \times 6 = 7 + 6 + 4 + 2 = 19$   
 B.  $7 \times 6 = 6 \times (3 + 3) = 18 + 18$      D.  $7 + 6 = 13$
- 7) Which comparison is true?
- A.  $\frac{2}{8} < \frac{2}{6}$      C.  $\frac{2}{8} = \frac{2}{6}$   
 B.  $\frac{2}{8} > \frac{2}{6}$      D.  $\frac{2}{6} < \frac{2}{8}$
- 8) If  $\square \times 3 = 18$ , what is  $18 \div 3$ ?
- A. 3     C. 9  
 B. 18     D. 6



1) A school library has 456 books. The librarian buys 244 more books. How many books are in the library now?

A. 700

C. 690

B. 701

D. 711

2) Sam has a rectangular poster. It is 4 inches wide and 6 inches long. What is the area of the poster?

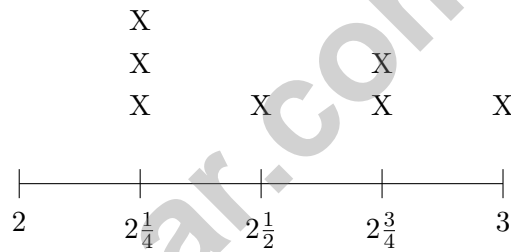
A. 10 sq in

C. 20 sq in

B. 24 sq in

D. 16 sq in

3) A line plot displays cookie weights in ounces:  $2$ ,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ ,  $3$ .



What weight has exactly 2 cookies?

A.  $2\frac{1}{4}$  ounces

C.  $2\frac{3}{4}$  ounces

B.  $2\frac{1}{2}$  ounces

D. 3 ounces

4) Which statement correctly compares a square and a rectangle?

A. Every rectangle is a square

C. They are never related

B. Every square is a rectangle

D. A square has no parallel sides



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5) A factory packages 90 toys equally into 9 crates. They ship away 4 crates. How many toys remain?

A. 45

C. 55

B. 60

D. 50

6) Compare the products. Is  $6 \times 7$  less than, equal to, or greater than  $9 \times 5$ ?

A.  $6 \times 7$  is less

C.  $6 \times 7$  is greater

B.  $6 \times 7$  is equal

D. Cannot compare without calculating

7) If  $\frac{3}{4} = \frac{?}{8}$ , what is the missing numerator?

8) Sam said  $\frac{5}{2} = 5$ . Is he correct?

A. Yes, because the numerator is 5

D. No, the numerator must equal the denominator

B. Yes, because  $5 > 2$

C. No, it equals  $\frac{5}{1}$

9) Which fraction equals  $\frac{1}{4}$ ?

A.  $\frac{2}{4}$

C.  $\frac{1}{8}$

B.  $\frac{2}{8}$

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



## 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 builds stronger math habits.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice D is correct. **(3.1.2.5)**  $7 \text{ packs of } 10 \text{ pencils} = 7 \times 10 = 70 \text{ pencils}$ .
- The correct answer is 26 square meters. **(3.3.1.1)** Upper part:  $5 \times 4 = 20 \text{ sq m}$ . Lower part:  $3 \times 2 = 6 \text{ sq m}$ . Total:  $20 + 6 = 26 \text{ sq m}$ .
- Choice B is correct. **(3.1.3.1)**  $\frac{2}{6}$  equals  $\frac{1}{3}$  because both represent the same point on the line. You can simplify  $\frac{2}{6}$  to  $\frac{1}{3}$ .
- Choice B is correct. **(3.1.3.1)** Three thirds equals one whole. One half is less than one whole. So  $\frac{3}{3} > \frac{1}{2}$ .
- Choice B is correct. **(3.4.1.1)** Ty:  $6 \times 5 = 30$ . Kim:  $8 \times 5 = 40$ . Fewer:  $40 - 30 = 10$ .
- Choice D is correct. **(3.3.1.1)** A quadrilateral has 4 vertices (corners), one at each place where two sides meet.
- Choice C is correct. **(3.1.3.3)** The garden is  $6 \text{ m} \times 2 \text{ m} = 12 \text{ m}^2$ , which equals 12 unit squares of 1 m by 1 m.
- Choice C is correct. **(3.4.1.1)** Add all X's:  $1 + 3 + 2 + 4 = 10 \text{ stems total}$ .
- Choice B is correct. **(3.2.2.1)** Area = length  $\times$  width =  $8 \times 2 = 16 \text{ square feet}$ .
- The correct answer is 9. **(3.2.2.2)**  $45 \div 5 = 9$  because  $9 \times 5 = 45$ . Division is the opposite of multiplication.
- Choice A is correct. **(3.1.1.4)** The ones digit is 2. Since  $2 < 5$ , round down: 662 rounds to 660.
- Choice D is correct. **(3.4.1.1)** "How many groups of 4" is a measurement division problem. Divide 16 by 4 to find the number of groups.
- Choice B is correct. **(3.1.3.2)** Two unit fractions of  $\frac{1}{6}$  are being added:  $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$ . So there are 2 unit fractions.
- Choice B is correct. **(3.1.3.1)** Option B has equal spacing. Option A is unequal; distances differ.
- Choices A and C are correct. **(3.1.2.3)** A is correct: area uses square units (sq in, sq cm, etc.). C is correct: the formula is  $A = \ell \times w$ . B is wrong: that is perimeter. D is wrong: they measure different things. E is wrong: perimeter and area are independent.
- Choice D is correct. **(3.1.2.4)** Option D is correct:  $2(8) + 2(4) = 24 \text{ ft}$ . Option A is 16 ft, option B is 18 ft, and option C is 20 ft.
- Choice C is correct. **(3.1.3.1)**  $\frac{20}{4} = 5$ ,  $\frac{7}{1} = 7$ ,  $\frac{8}{8} = 1$ . Only  $\frac{3}{2} = 1\frac{1}{2}$  is not a whole.
- Choice D is correct. **(3.1.2.3)** Area =  $7 \times 5 = 35 \text{ ft}^2$ .
- Choice C is correct. **(3.1.2.3)** A square is a rectangle with equal sides. Area =  $4 \times 4 = 16 \text{ square cm}$ .
- Choice B is correct. **(3.1.3.2)** Four equal pieces means each piece is  $\frac{1}{4}$  of the sandwich.
- Choice D is correct. **(3.1.3.1)**  $\frac{1}{4} = \frac{2}{8}$ . Both sections cover one-quarter of their gardens.
- Choice A is correct. **(3.2.1.1)** Noon is 12 : 00 PM.  $12 : 00 + 25 \text{ min} = 12 : 25 \text{ PM}$ . Distractor B (off-by-10), C (full hour), D (adds extra hour).
- Choice A is correct. **(3.1.3.3)**  $\frac{2}{3}$  and  $\frac{4}{6}$  represent the same amount. Both show two-thirds.
- Choice D is correct. **(3.2.1.1)** From 6 to 12 is +6; from 12 to 18 is +6. The constant difference is 6.
- Choice D is correct. **(3.1.3.1)** The array shows 2 columns and 5 rows of small squares. So  $2 \times 5 = 10$  or  $5 \times 2 = 10$ .
- The correct answer is 525. **(3.1.2.1)** Subtract to find the missing addend:  $781 - 256 = 525$ . Check:  $525 + 256 = 781$ .
- Choice C is correct. **(3.1.3.1)** Count rows and columns:  $6 \times 4 = 24 \text{ square units}$ . Bridge from visual tiling to multiplication.
- Choice C is correct. **(3.1.3.1)** Multiply numerator and denominator by 4:  $\frac{1 \times 4}{2 \times 4} = \frac{4}{8}$ .
- Choice C is correct. **(3.1.2.1)** Multiply:  $3 \times 200 = 600 \text{ mL}$ .
- Choice C is correct. **(3.1.2.5)**  $9 \times 4 = 36$  is correct. The others:  $7 \times 6 = 42$ ,  $8 \times 6 = 48$ ,  $5 \times 9 = 45$ .

### Practice Test 2 Answers and Explanations

- Choice C is correct. **(3.3.2.1)** Count by rows:  $5 + 5 + 5 + 5 = 20 \text{ unit squares}$ . This is one way to count area.



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## Hi, Curious Scientist!

◇ 3 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

### Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

**Scientist tip:** on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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 Scientist

# 3 GRADE 3 MATH PRACTICE TESTS

Practice Today. *Succeed* Tomorrow!



Give your child the tools to build strong math skills and test confidence!

This book includes 3 full-length Grade 3 Math practice tests that mirror real test formats and cover all key math standards. With a wide range of question types and real-world problems, students will gain the practice and confidence they need to do their best!

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Questions designed to cover essential Grade 3 math standards.



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