



# 6

# Minnesota MCA III



# GRADE 5 MATH

## PRACTICE TESTS

Complete Standards-Based Practice  
— for Grade 5 Math Success —



$$5^2 = 25$$



**6 FULL-LENGTH PRACTICE TESTS**  
Realistic style questions



**STANDARDS-BASED PRACTICE**  
Covers all Grade 5 Math standards

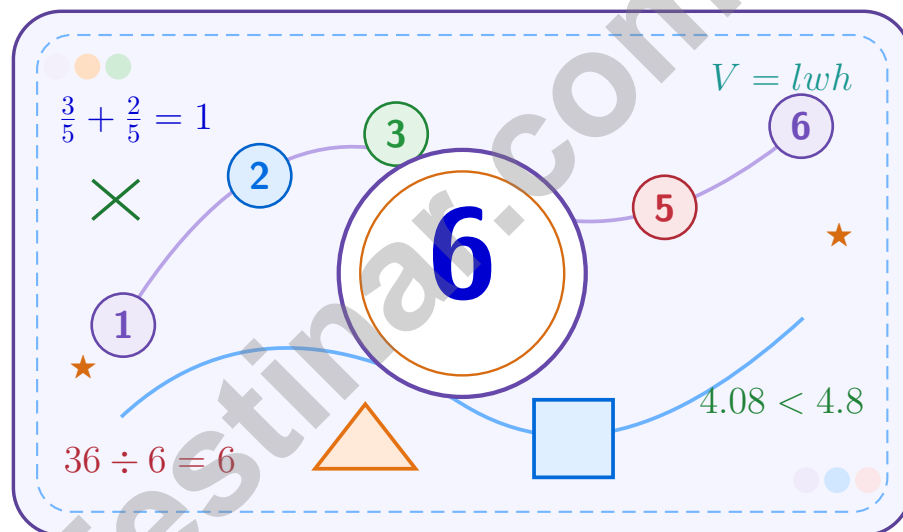


**BUILD CONFIDENCE. IMPROVE SCORES.**  
Target weak areas and achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

# 6 Minnesota MCA-III Grade 5 Math Practice Tests

*A six-step confidence climb with clear review, smart strategy, and practice that gets stronger every round*



Six full tests, a focused skill booster, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.

**Jay Daie and Reza Nazari**



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# Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

## To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these six tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up fast.

### Try

Give each problem your best thinking.

### Check

Study mistakes and learn what happened.

### Rise

Bring that lesson into the next round.

**A strong habit for every page:** read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

# How to Use This Book

A simple practice routine that turns six tests into steady growth

## Step 1: Warm Up

**Start with the quick review.**  
Spend a few minutes refreshing the ideas before you start a test.

## Step 2: Take the Test

**Take one full practice test.**  
Work in a quiet space and let accuracy matter more than speed.

## Step 3: Study the Pattern

**Check your work honestly.**  
Circle missed questions and notice patterns in the mistakes.

## Step 4: Learn, Then Retry

**Read the explanation and try again.**  
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.

## A Six-Week Climb Map

Week	Mission Focus
<b>Week 1</b>	Take Test 1 and review any place-value or operation slips.
<b>Week 2</b>	Take Test 2 and focus on showing neat, easy-to-read work.
<b>Week 3</b>	Take Test 3 and give extra time to fractions or decimals if needed.
<b>Week 4</b>	Take Test 4 and slow down on word problems and units.
<b>Week 5</b>	Take Test 5 and compare your score and habits with earlier rounds.
<b>Week 6</b>	Take Test 6 and finish with calm, careful, confident work that uses everything you practiced before.



Scan me

# Test Overview

## What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Minnesota MCA-III. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first and crossing out weak choices can save time and points.

### Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

### Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

**What strong work looks like:** the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



# Table of Contents

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Grade 5 Mathematics

1

Questions: 40 Duration: No time limit

Calculator Policy: Calculators are not allowed



## 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) Complete the pattern:  $1.2 \times 10 = 12$ ,  $1.2 \times 100 = 120$ ,  $1.2 \times 1000 = ?$

- A. 12                                       C. 1200  
 B. 120                                       D. 12000

2) Subtract:  $3\frac{2}{9} - 1\frac{7}{9}$  (requires borrowing).

- A.  $2\frac{2}{9}$                                        C.  $2\frac{1}{9}$   
 B.  $1\frac{5}{9}$                                        D.  $1\frac{4}{9}$



3)

A length of 10 units is scaled by  $\frac{6}{5}$ . What is the result?

- A. 8 units                                       C. 20 units  
 B. 12 units                                       D. 10 units

4) A rectangular prism is built from unit cubes. It is 4 cubes long, 3 wide, and 2 tall. How many cubes total?

*Record your answer in the space provided.*



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1) Which expression has a value of 24?

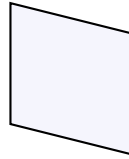
A.  $15 - 7 \times 3$

C.  $(15 - 7) \times 3$

B.  $(15 - 5) \times 3$

D.  $(15 - 9) \times 3$

**Rhombus**



2)

A rhombus can be identified by which characteristic?

A. All sides are equal in length.

C. It has exactly one pair of parallel sides.

B. All angles are  $90^\circ$ .

D. It has no parallel sides.

3) Compare:  $(40 + 60) \div 5$    $(40 \div 5) + (60 \div 5)$

A.  $>$

C.  $=$

B.  $<$

D. Cannot tell



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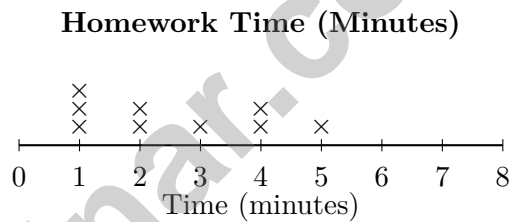
1) Which statement describes the location of the point (2, 6) correctly?

- A. 2 units left, 6 units down                       C. 2 units right, 6 units up  
 B. 6 units left, 2 units down                       D. 6 units right, 2 units up

2) Write a division equation for: 7 wholes split into half-size pieces.

*Record your answer in the space provided.*

3) The line plot shows the time (in minutes) students spent on math homework:



How many students spent 2 minutes on math homework?

- A. 1 student     C. 3 students  
 B. 2 students     D. 4 students

4) A polygon has 6 sides, 6 vertices, and all sides and angles equal. What name can be used for this shape?

*Record your answer in the space provided.*



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## 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 C is correct.** (5.1.2.2) Following the pattern,  $1.2 \times 1000 = 1200$  (move decimal 3 places right).
- Choice D is correct.** (5.1.2.3) Borrow 1 from 3:  $2\frac{11}{9} - 1\frac{7}{9} = 1\frac{4}{9}$ .
- Choice B is correct.** (5.1.2.2)  $10 \times \frac{6}{5} = 12$  units. Since  $\frac{6}{5} > 1$ , the scaled length is larger than 10 units.
- The correct answer is 24.** (5.3.2.3) Think of the prism as layers of cubes. Each layer has  $4 \times 3 = 12$  cubes, and 2 layers make  $12 \times 2 = 24$  unit cubes.
- Choice A is correct.** (5.1.2.2)  $29 \times 10 = 290$ . Append one zero to the right.
- Choice D is correct.** (5.2.1.2) A point on the y-axis has x-coordinate 0. Only (0, 7) satisfies this condition.
- The correct answer is  $\frac{13}{24}$ .** (5.2.2.1) LCD = 24.  $\frac{9}{24} + \frac{4}{24} = \frac{13}{24}$ .
- Choice B is correct.** (5.2.1.2) Pattern T is twice Pattern U:  $2 \times 2 = 4$ ,  $4 \times 2 = 8$ ,  $6 \times 2 = 12$ , etc.
- Choice D is correct.** (5.1.3.4)  $\frac{1}{2} \times 20 = \frac{20}{2} = 10$ .
- Choice C is correct.** (5.3.1.1) The two top angles, angles 3 and 4, are wider than right angles, so they are obtuse. The two bottom angles are smaller than right angles.
- Choice C is correct.** (5.1.3.3)  $\frac{4}{9} \approx \frac{1}{2}$  and  $\frac{2}{5} \approx \frac{1}{2}$ . Sum:  $\frac{1}{2} + \frac{1}{2} = 1$ .
- Choice A is correct.** (5.1.2.2) When dividing by 100, move the decimal point 2 places to the left:  $83.5 \rightarrow 8.35 \rightarrow 0.835$ . So  $83.5 \div 100 = 0.835$ .
- Choice A is correct.** (5.1.2.2) Multiplying by 10 moves the decimal one place right, so 5.09 becomes 50.9.
- Choice B is correct.** (5.1.3.4) Check: for first coordinates 1, 2, and 3, doubling and adding 1 gives 3, 5, and 7.
- Choice C is correct.** (5.1.3.4) Total: 9 yards = 27 feet. Each piece:  $27 \div 3 = 9$  feet.
- Choice C is correct.** (5.1.2.1)  $0.750 = 0.75$  because the trailing zero does not change value. The others are NOT equivalent.
- Choice A is correct.** (5.1.2.2) Use the zeros to reason backward: 400 has two zeros, and the product has four trailing zeros.  $900 \times 400$  gives 36 with four zeros, or 360,000.
- The correct answer is 4.4.** (5.1.3.3) Hundredths digit is 8, which rounds the tenths up:  $4.3 \rightarrow 4.4$ .
- Choices A, B are correct.** (5.3.2.3) Volume is found by multiplying the dimensions, so  $3 \times 2 \times 4 = 24$ . Choices C and D add or misread the dimensions instead.
- Choice C is correct.** (5.1.1.4) Common denominator is 15:  $\frac{3}{5} = \frac{9}{15}$  and  $\frac{1}{3} = \frac{5}{15}$ . So  $\frac{9}{15} + \frac{5}{15} = \frac{14}{15}$  mile.
- Choice A is correct.** (5.3.2.4) The base area is 100 square meters. Since  $500 \div 100 = 5$ , the height is 5 m.
- Choice A is correct.** (5.1.1.1) One tenth of the rectangle is split into 2 equal smaller parts. That makes each small part  $\frac{1}{10} \div 2 = \frac{1}{20}$  of the whole.
- Choice A is correct.** (5.2.2.1) First find all the cookies on the trays:  $5 \times 12 = 60$ . Then subtract the 20 cookies sold, leaving  $60 - 20 = 40$  cookies.
- Choice B is correct.** (5.1.3.4) Start with one unit fraction,  $\frac{1}{3}$ , and share it into 2 equal parts. Each part is  $\frac{1}{3} \div 2 = \frac{1}{6}$  of the whole.
- Choice D is correct.** (5.4.1.2) 1 km = 1,000 m. Multiply:  $125 \times 1000 = 125000$  m.
- Choice A is correct.** (5.1.3.4)  $11.25 - 5.43 = 5.82$ . Align decimals and subtract each place.
- Choice C is correct.** (5.1.3.4) Hundredths:  $7 + 9 = 16$ , so write 6 and regroup 1 tenth. Tenths:  $5 + 4 + 1 = 10$ , so write 0 tenths and regroup 1 one. Ones:  $2 + 3 + 1 = 6$ . The sum is 6.06.
- The correct answer is 18.** (5.1.3.4) Multiples of 6: 6, 12, 18, ... Multiples of 9: 9, 18, ... LCD is 18.
- Choice C is correct.** (5.1.3.3) Choose the operation from the story, then keep the unit with the answer. Multiply:  $2.3 \times 8 = 18.4$  centimeters. This confirms the answer.
- Choice A is correct.** (5.1.3.4) Use division because we are finding how many quarter-pound groups fit in 6 pounds:  $6 \div \frac{1}{4} = 24$  displays.
- Choice C is correct.** (5.1.2.2) Since  $\frac{5}{3} > 1$ , multiplying by it makes the result greater than 12.



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### Director's Notes: Final Scene

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#### Greetings, Star Performer!

★ Spectacular performance! You've rehearsed six complete mathematical productions, perfecting your delivery and timing like a professional actor! Each test was a dress rehearsal, allowing you to fine-tune your performance, discover your strengths, and polish your techniques. Opening night (test day) approaches, and you're absolutely ready for the spotlight! ★

◇ **Here's what acclaimed performers understand:** confidence comes from thorough preparation. Professional actors rehearse extensively so that when the curtain rises, they can perform naturally and confidently. You've completed your rehearsals—six of them! Your mathematical performance skills are polished and ready. Trust your preparation and deliver an outstanding show! ◇

#### Performance Review Notes

1. **Character Development:** You understand your mathematical role completely!
2. **Stage Presence:** You approach problems with confidence and poise!
3. **Line Delivery:** You express solutions clearly and accurately!
4. **Show Ready:** You're prepared for a standing ovation!

**Remember this performance wisdom:** great actors don't memorize words; they understand characters. You haven't just memorized procedures; you understand mathematical concepts. That deep understanding means you can adapt to any question variation. When the test begins, step into your role confidently and perform brilliantly!

Want to share your mathematical performance insights or celebrate a particularly elegant solution? Send your reviews to [reza@testinar.com](mailto:reza@testinar.com). I appreciate mathematical artistry!

**Reza Nazari & Jay Daie**

Your Math Coaches for Confident Answers

# 6 FULL-LENGTH TESTS. ENDLESS POTENTIAL.

PRACTICE TODAY. SUCCEED TOMORROW.

Give your child the tools they need to build strong math skills and test-taking confidence! This book includes **6 full-length practice tests** along with standards-based practice, mixed review, word problems, and a complete answer key.

★★★  
PRACTICE  
WITH PURPOSE.  
ACHIEVE WITH  
CONFIDENCE.

## WHAT'S INSIDE:



### 6 FULL-LENGTH PRACTICE TESTS

Realistic tests designed to reflect the actual test format and help build confidence.



### STANDARDS-BASED PRACTICE

Covers all essential Grade 5 math standards with clear explanations and examples.



### MIXED REVIEW

Reinforces key concepts with a variety of question types and review exercises.



### WORD PROBLEMS

Build critical thinking and problem-solving skills with real-world scenarios.



### COMPLETE ANSWER KEY

Step-by-step explanations for every question to support learning and growth.



### IMPROVE. PRACTICE. ACHIEVE.

Consistent practice leads to stronger skills, higher scores, and greater success.



## WHY PRACTICE MAKES A DIFFERENCE



### BUILD CONFIDENCE

Feel prepared and ready for any challenge.



### IMPROVE ACCURACY

Strengthen skills and reduce careless mistakes.



### THINK STRATEGICALLY

Develop problem-solving skills and deepen understanding.



### MANAGE TIME

Practice under timed conditions to build stamina.



### STAY MOTIVATED

Track progress and celebrate every win.



### ACHIEVE SUCCESS

Reach goals and unlock your full potential!



Visit [testinar.com/math5](https://testinar.com/math5)

for more Grade 5 math resources and practice materials!



**Testinar**

Smart Practice. Stronger Results.