

4

COMPLETE

North Dakota NDSA

Grade **MATH**

PRACTICE TESTS

5

Standards-Based Test Prep with
Mixed Review, Word Problems,
and **Full Answer Key**



- ✓ **4 COMPLETE PRACTICE TESTS**
Built to reflect the test format and rigor



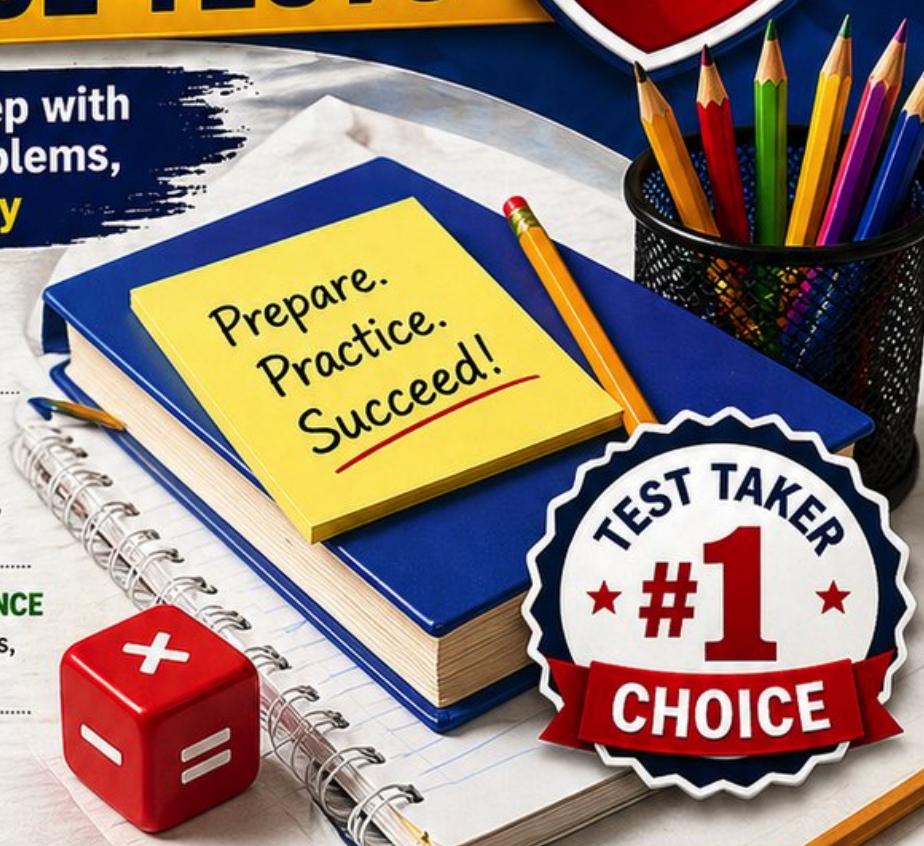
- ✓ **COVERS ALL ESSENTIAL TOPICS**
Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more



- ✓ **STRENGTHEN SKILLS & CONFIDENCE**
Mixed review, challenging questions, and strategic practice



- ✓ **FULL ANSWER KEY INCLUDED**
Detailed explanations for every question



**TEST TAKER
#1
CHOICE**



**BUILD STRONG
MATH SKILLS
& TEST READINESS**



**IMPROVE ACCURACY,
SPEED, AND
PROBLEM SOLVING**



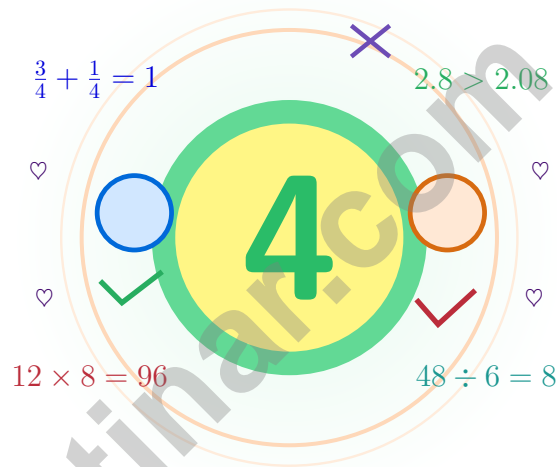
**PERFECT FOR
CLASSROOM,
HOME, OR
SELF-STUDY**



**ALIGNED TO
NORTH DAKOTA
STATE STANDARDS
(NDSA)**

4 North Dakota NDSA Grade 5 Math Practice Tests

Four practice tests, four growth checks, one calm routine



Four full tests, a smart quick review, mission-style strategy pages,
and student-tested support that help Grade 5 mathematicians from
The Peace Garden State build calm, careful, confident habits.

Jay Daie and Reza Nazari



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North Dakota Mathematicians, Step into Mission Control

A four-test adventure built for steady, brave thinking

An Invitation to Grade 5 in North Dakota

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math is a lot like a North Dakota prairie – wide, open, and patient with anyone willing to keep looking.

You do not need to feel perfect before you begin. You just need to stay curious, use strategies, and learn from every correction. That is how confident mathematicians are built.

See

See the whole problem
before you start the
math.

Plan

Plan one careful step
before the next.

Reflect

Reflect after each
problem to lock the
lesson in.

A strong mission habit for North Dakota: keep your work neat, estimate when it helps, label units carefully, and never let one hard question decide your mood for the whole page.

A Simple Path Through Four Tests

A four-step routine that turns practice into real improvement

Step 1: Set Up

Pencil ready, distractions gone.

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Work the Test

Take a full test like the real day.

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Look Back

Walk through your answers without rushing.

Circle missed questions, sort out what went sideways, and notice which skills are calling for attention.

Step 4: Climb Higher

Pick one or two skills to sharpen next.

Read the explanation, fix the work, and carry that lesson into the very next test.

A Four-Week North Dakota Mission Map

Week	Mission Focus
Week 1	Take Test 1 with the wide, patient gaze of a prairie sunrise.
Week 2	Take Test 2 and lift word problems and step-showing.
Week 3	Take Test 3 to polish fractions, decimals, and conversions.
Week 4	Take Test 4 with calm, careful focus.



Scan me

About These Four Tests

What these four practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Peace Garden State for the North Dakota NDSA with the calm focus of a wide-sky morning. The goal is bigger than collecting right answers. Students are practicing how to read carefully, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every day.

Selected-Response Questions

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

Constructed-Response Questions

Students show steps, explain a method, or support an answer with clear math. Strong reasoning matters because it shows how the answer was found.

Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- tables, line plots, patterns, and coordinate points
- geometry and multi-step real-world problem solving

What strong NDSA-style work looks like: accurate math, readable steps, the right labels or units, and a final answer that really matches the question being asked.



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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



6) What is $9,000 \div 100$?

- A. 90
 B. 900

- C. 90,000
 D. 9

7) Without computing, which of these products is smaller than 14?

- A. 14×1
 B. $14 \times \frac{7}{6}$

- C. $14 \times \frac{5}{7}$
 D. 14×2

8) A group of friends buys 4 sandwiches for \$6 each and 4 drinks for \$2 each. They pay with a \$50 bill. Which expression shows how much change they should receive?

- A. $50 - (4 \times 6 + 4 \times 2)$
 B. $50 - (4 + 6 + 4 + 2)$

- C. $(50 - 4) \times (6 + 2)$
 D. $4 \times (50 - 6 - 2)$

9) Evaluate: $40 \div (5 + 3) \times 2$

- A. 2.5
 B. 5

- C. 10
 D. 16

10) Find the sum: $1\frac{1}{2} + 2\frac{1}{3}$.

Record your answer in the space provided.



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- 1) The table shows several products and their number of trailing zeros. Based on the pattern, how many zeros does 300×400 have?

Expression	Product	Zeros
3×4	12	0
30×40	1,200	2
300×40	12,000	3
300×400	?	?

- A. 4
- B. 5
- C. 6
- D. 7
- 2) Find: $24.5 \div 10^2$.

Record your answer in the space provided.

- 3) A child drinks 1 cup 2 fluid ounces of milk at breakfast and 1 cup 6 fluid ounces at dinner. How many fluid ounces of milk did the child drink in total?
Use: 1 cup = 8 fluid ounces

- A. 18 fluid ounces
- B. 20 fluid ounces
- C. 22 fluid ounces
- D. 24 fluid ounces



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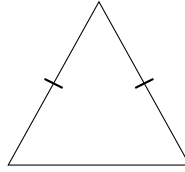
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- 1) Look at the triangle. Two sides are marked with tick marks. What kind of triangle is it based on its sides?



- A. Scalene
- B. Isosceles
- C. Equilateral
- D. Right
- 2) Three teams share a prize of \$240. Each team then spends \$15 on supplies. Which expression represents how much each team has left?
- A. $(240 - 15) \div 3$
- B. $240 \div 3 + 15$
- C. $240 - 15 \times 3$
- D. $(240 \div 3) - 15$
- 3) A scientist studies molecule counts. Order these from smallest to largest: 2×10^6 , 25×10^5 , 22×10^5 .

Expression	Value
2×10^6	2000000
22×10^5	2200000
25×10^5	2500000

- A. $2 \times 10^6, 22 \times 10^5, 25 \times 10^5$
- B. $25 \times 10^5, 22 \times 10^5, 2 \times 10^6$
- C. $22 \times 10^5, 2 \times 10^6, 25 \times 10^5$
- D. All are equal



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1) Which formula correctly gives the volume of a rectangular prism?

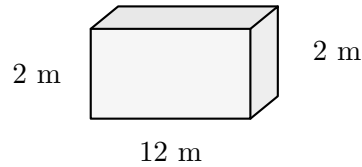
A. $V = l + w + h$

C. $V = B + h$

B. $V = l \times w \times h$

D. $V = l \times w + h$

2) A shipping container measures 12 meters long, 2 meters wide, and 2 meters tall. What is its volume in cubic meters?



A. 24 cubic meters

C. 48 cubic meters

B. 32 cubic meters

D. 96 cubic meters

3) Tom jogged $\frac{3}{5}$ of a mile on Monday and $\frac{1}{5}$ of a mile on Tuesday. How far did he jog in total?

A. $\frac{1}{5}$ mile

C. $\frac{4}{5}$ mile

B. $\frac{2}{5}$ mile

D. 1 mile

4) A gift box measuring 11 cm long, 7 cm wide, and 4 cm tall has what volume?

A. 220 cm^3

C. 288 cm^3

B. 260 cm^3

D. 308 cm^3

5) Which number makes $16 \times \square = 16$?

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

C. 1

B. $\frac{3}{4}$

D. $\frac{5}{4}$



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 D is correct.** (5.NO.NBT.7) A power of 10 tells how many factors of 10 to use. 10^1 is simply 10. This confirms the answer.
- Choice A is correct.** (5.GM.M.3) $1 \times 8 \times 4 = 32$ cu. units. Choice B: $1 \times 4 \times 7 = 28$. Choice C: $3 \times 4 \times 3 = 36$. Choice D: $2 \times 3 \times 5 = 30$.
- Choice C is correct.** (5.NO.NF.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.GM.M.1) Since 1 yard = 3 feet, multiply $5 \times 3 = 15$. The hallway is 15 feet long.
- Choice C is correct.** (5.AR.OA.5) Pattern B increases by 3 each step: 2, 5, 8. At step 3, Pattern B is 8.
- Choice A is correct.** (5.NO.NBT.7) Dividing by 100 moves the decimal point two places to the left. $9,000 \div 100 = 90$.
- Choice C is correct.** (5.NO.NF.2) Only $\frac{5}{7} < 1$, so only $14 \times \frac{5}{7}$ produces a result smaller than 14. The others are equal to or larger than 14.
- Choice A is correct.** (5.AR.OA.3) The sandwich cost is 4×6 , and the drink cost is 4×2 . Add those costs first, then subtract the total from 50 to show the change.
- Choice C is correct.** (5.AR.OA.2) The parentheses make $5 + 3 = 8$. Then division and multiplication go left to right: $40 \div 8 = 5$, and $5 \times 2 = 10$.
- The correct answer is $3\frac{5}{6}$.** (5.NO.NF.3) Add wholes: $1 + 2 = 3$. Add fractions: $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$. Total: $3\frac{5}{6}$.
- Choice D is correct.** (5.NO.NBT.3) The tenths digit is 7. Since $7 \geq 5$, round ones up: $156 \rightarrow 157$. So 156.78 miles rounds to 157 miles.
- Choice A is correct.** (5.NO.NF.3) $\frac{1}{4} \times 28 = \frac{28}{4} = 7$ sandwiches.
- Choice C is correct.** (5.GM.M.3) Multiply the three dimensions: $9 \times 4 \times 3 = 36 \times 3 = 108$. The volume is 108 cm^3 .
- Choice D is correct.** (5.NO.NBT.1) If we multiply by 10 to get 7.2, then the starting number was $7.2 \div 10 = 0.72$.
- The correct answer is 20.** (5.AR.OA.5) Compare the y-values: $70 - 50 = 20$. The temperature changed by 20 degrees.
- Choice D is correct.** (5.NO.NF.3) LCD = 15. $\frac{3}{5} = \frac{9}{15}$; $\frac{2}{3} = \frac{10}{15}$. $\frac{9}{15} - \frac{10}{15} = -\frac{1}{15}$.
- Choice D is correct.** (5.NO.NBT.7) A is false: $0.13 \times 100 = 13 < 130 = 0.13 \times 1000$. B is true: $13 = 13$. C is false: $0.13 \times 10 = 1.3 = 1.3$ (equal, not greater). D is false: $0.013 \times 100 = 1.3 = 1.3$ (equal).
- Choice D is correct.** (5.NO.NF.3) From the table, 24 appears in both rows. The least common denominator is 24.
- Choices A, B are correct.** (5.NO.NF.2) First rewrite $2\frac{1}{3}$ as $\frac{7}{3}$ and $1\frac{1}{2}$ as $\frac{3}{2}$. Their product is $\frac{7}{3} \times \frac{3}{2} = \frac{7}{2} = 3\frac{1}{2}$, so A and B are true.
- Choice C is correct.** (5.NO.NBT.7) The pattern adds one zero each time the multiplier grows by a factor of 10. With 1,000, the product is 15,000.
- Choice D is correct.** (5.GM.G.3) Use output = input \times input. With input 5, the output is $5 \times 5 = 25$, so the ordered pair is (5, 25).
- Choice A is correct.** (5.NO.NF.3) Simplify: $\frac{4}{12} = \frac{1}{3}$. Then LCM(3,5) = 15. $\frac{1}{3} = \frac{5}{15}$ and $\frac{2}{5} = \frac{6}{15}$. $\frac{5}{15} + \frac{6}{15} = \frac{11}{15}$.
- Choice C is correct.** (5.NO.NF.3) The denominator 5 is multiplied by 5 to make 25. Multiply the numerator by 5 also: $\frac{4}{5} = \frac{20}{25}$.
- The correct answer is $\frac{1}{9}$.** (5.NO.NF.4) $\frac{1}{3} \div 3 = \frac{1}{9}$ liter. Sharing one-third liter fairly among 3 friends gives each friend one-ninth liter.
- Choice D is correct.** (5.AR.OA.3) Area of a rectangle is length times width. Here the length is (4 + 3) and the width is 5, so the area expression is $(4 + 3) \times 5$.
- The correct answer is =.** (5.NO.NBT.2) Trailing zero adds no value; both equal 7.2.
- Choice C is correct.** (5.GM.G.1) The 7 figures in the outer part of the parallelogram circle are parallelograms but not rectangles.
- Choice B is correct.** (5.NO.NF.2) $\frac{4}{9} \times \frac{3}{5} = \frac{12}{45} = \frac{4}{15}$ (divide by 3).
- Choice A is correct.** (5.GM.M.3) The base area is 20 square inches. Since $140 \div 20 = 7$, the height is 7 in.
- The correct answer is 2400.** (5.DPS.D.1) Each kilogram has 1,000 grams. Two kilograms is 2,000 grams, and $2,000 + 400 = 2,400$ grams.



Champion's Training Log

Dear Math Champion,

◇ Look at what you did. 4 full practice tests. Hundreds of math problems. Every one of them strengthened your mind. You walked into this prep series as a learner, and you are walking out as a math athlete who knows how to compete. ◇

★ **What champions know:** talent is helpful, but training is everything. You trained. You showed up. You did the work. That is why your skills are sharp today. ★

Champion's Skill Card

- **Focus:** MAXED OUT! You can lock onto a problem and stay there.
- **Speed:** CALIBRATED! You move quickly without rushing.
- **Accuracy:** HIGH! You catch your own mistakes.
- **Mindset:** CHAMPION-LEVEL! You believe in your skills.

Final champion tip: on test day, walk in like you have trained for it—because you have. Sit down. Breathe. Read carefully. Work steadily. Check confidently. You will be amazed at how prepared you actually are.

If you want to share a proud moment or ask a question, please email me at jay@testinar.com. I'd love to hear from you!

Jay Daie

Your Math Coaches (Champion-in-Training)

4 COMPLETE TESTS. CONFIDENCE. SUCCESS.



Give your child the practice and confidence they need to excel in **Grade 5 Math**. This book includes **4 full-length** practice tests designed to build skills, improve test readiness, and help students reach their full potential.

WHAT'S INSIDE:



4 COMPLETE PRACTICE TESTS

Full-length tests that reflect real test format and rigor.



COVERS ALL GRADE 5 TOPICS

Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more.



MIXED REVIEW & WORD PROBLEMS

Build problem-solving skills with mixed review questions and real-world word problems.



DETAILED ANSWER KEY

Step-by-step explanations for every question to help students learn and improve.



BUILD CONFIDENCE & IMPROVE SCORES

Practice consistently, reduce test anxiety, and achieve your best score!



PRACTICE SMART. LEARN MORE. ACHIEVE YOUR BEST.



Strengthen
Math Skills



Improve
Accuracy
& Speed



Master
Essential
Concepts



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on Test Day



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