

7

North Dakota

NDSA

GRADE 5

MATHEMATICS

PRACTICE TESTS

✓
PRACTICE
PREPARE
SUCCEED

★★★

Comprehensive Standards-Aligned
Review for Strong Grade 5
Math Performance



$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$

$$2.4 + 1.6 = 4.0$$

$$A = \frac{bh}{2}$$



**7 FULL-LENGTH
PRACTICE TESTS**

Realistic style
questions



**STANDARDS-
ALIGNED**

Covers all Grade 5
standards



BUILD CONFIDENCE

Target weak areas
and improve
performance



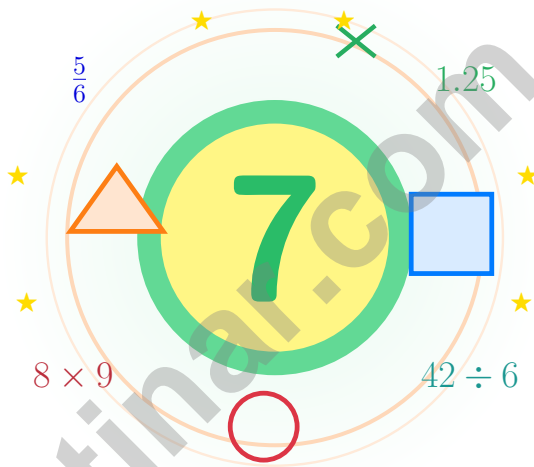
ACHIEVE SUCCESS

Develop skills,
stay prepared,
excel on test day

★ PRACTICE TODAY. PERFORM TOMORROW. **SUCCEED** FOREVER. ★

7 North Dakota NDSA Grade 5 Math Practice Tests

Seven steps, seven growth checks, one calm routine



Seven full tests, a concise review, and helpful support that turns Grade 5 practice in The Peace Garden State into steady, confident growth from page one to the final check.

Jay Daie and Reza Nazari



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Welcome to the Practice Path, North Dakota

This book is here to help you practice, reflect, and rise across seven tests

Trail Briefing for North Dakota Grade 5 Math Crew

This practice book is your steady companion for seven tests, not a place to be perfect. Math is a lot like a North Dakota prairie – wide, open, and patient with anyone willing to keep looking.

Use these seven 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 across seven rounds.

Read

Read with care – math problems hide their gifts.

Try

Try a strategy that fits the size of the numbers.

Reflect

Reflect after each problem to lock the lesson in.

A strong habit for North Dakota mathematicians: 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.

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How to Use This Book

A simple routine that turns practice into progress

Step 1: Notice

Notice the structure: warm-up, test, review, repair.

Spend a few minutes waking up your memory before the test begins.

Step 2: Practice

Practice one full test in quiet conditions.

Work in a calm spot and focus on careful thinking before speed.

Step 3: Honest Check

Check honestly without rushing.

Circle missed questions and notice which topics keep showing up.

Step 4: Polish

Polish the rough spots before the next test.

Read the explanation, repair the work, and bring that lesson into the next test.

A Good 7-Week North Dakota Rhythm

Week 1	Take Test 1 with the wide gaze of a prairie sunrise.
Week 2	Take Test 2 and slow down on word problems.
Week 3	Take Test 3 and lift fraction and decimal work.
Week 4	Take Test 4 and pay close attention to labels and units.
Week 5	Take Test 5 and compare your habits with your first test.
Week 6	Take Test 6 and practice staying calm during tricky questions.
Week 7	Take Test 7 with calm, careful focus.



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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)

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CAPACITY

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1 cup (c) = 8 fluid ounces (fl oz)

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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

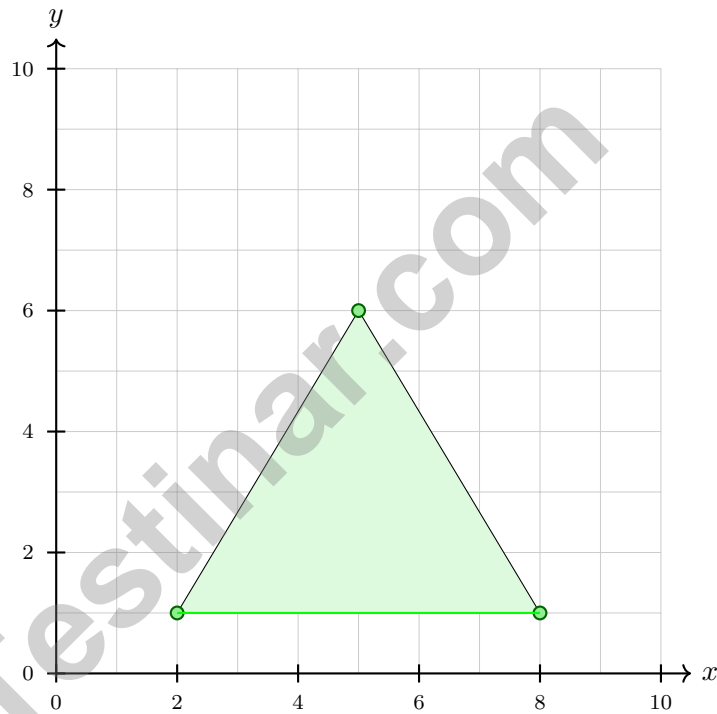


- 1) Estimate the product 26×37 by rounding each factor to the nearest ten.
- A. 900 C. 1,100
 B. 1,000 D. 1,200
- 2) Volume 420 cm^3 , length 12 cm, width 7 cm. Height = ?
- A. 5 cm C. 84 cm
 B. 401 cm D. 441 cm
- 3) A composite art display is made from two non-overlapping rectangular prisms. Prism A is 5 meters long, 4 meters wide, and 4 meters tall. Prism B is 6 meters long, 2 meters wide, and 4 meters tall. What is the total volume?
- A. 80 cubic meters C. 148 cubic meters
 B. 48 cubic meters D. 128 cubic meters
- 4) What is the value of $12 \times 5 - 10 \div 2 + 3$?
- A. 28 C. 53
 B. 58 D. 29
- 5) Which is true about 0.8 and 0.80?
- A. $0.8 < 0.80$ because it has fewer digits C. $0.8 = 0.80$ because trailing zeros don't
 B. $0.8 > 0.80$ because 0.8 has fewer change value
decimal places D. They cannot be compared
- 6) For the points (1, 2), (2, 4), (3, 6), each Y value is how many times X?

Record your answer in the space provided.



- 7) A stage block measures 7 centimeters long, 3 centimeters wide, and 3 centimeters tall. What is its volume?
- A. 63 cubic centimeters C. 9 cubic centimeters
 B. 21 cubic centimeters D. 13 cubic centimeters
- 8) A triangle has vertices at $(2, 1)$, $(8, 1)$, and $(5, 6)$. What is the length of the base of this triangle?



- A. 4 units C. 6 units
 B. 5 units D. 12 units



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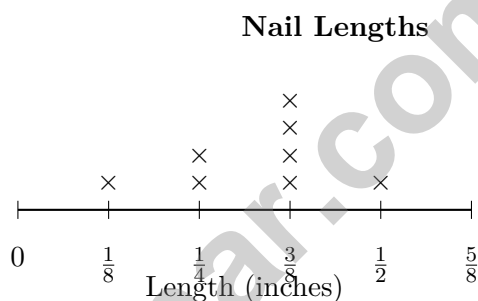
1) A baker found that rounding $7\frac{3}{11}$ to 7 and $2\frac{9}{10}$ to 3 gave an estimate of 10 for their sum. Is the estimate within 0.5 of the true sum?

- A. Yes, it equals the exact sum C. No, it is off by more than 0.5
 B. Yes, it is within 0.5 D. Cannot determine from the estimate

2) How many feet are in 54 inches? (Express as a mixed number if needed.)

- A. $5\frac{1}{2}$ feet C. 5 feet
 B. $4\frac{3}{4}$ feet D. $4\frac{1}{2}$ feet

3) The line plot shows nail lengths (in inches) sorted in a toolbox:



How many nails are $\frac{3}{8}$ inch long?

- A. 2 C. 4
 B. 3 D. 5



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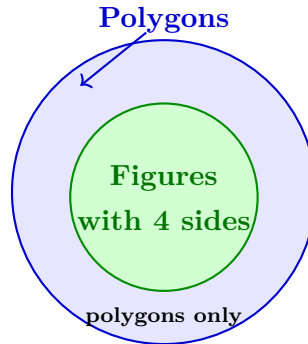
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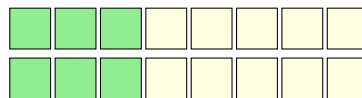
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- 1) A Venn diagram has a large circle for polygons and a smaller circle inside it for figures with 4 sides. Which figure belongs inside the large circle but outside the smaller circle?



- | | |
|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> A. Rectangle | <input type="checkbox"/> C. Triangle |
| <input type="checkbox"/> B. Square | <input type="checkbox"/> D. Rhombus |
- 2) A rope is multiplied by $\frac{3}{4}$. Without calculating the exact length, is the new length greater than, less than, or equal to the original?
- | | |
|---|---|
| <input type="checkbox"/> A. Greater than original | <input type="checkbox"/> C. Equal to original |
| <input type="checkbox"/> B. Less than original | <input type="checkbox"/> D. Cannot determine |
- 3) A coordinate plane shows points where the second coordinate is 2 less than the first coordinate. Which point does NOT fit?
- | | |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> A. (3, 1) | <input type="checkbox"/> C. (7, 5) |
| <input type="checkbox"/> B. (5, 3) | <input type="checkbox"/> D. (8, 7) |
- 4) Rectangle divided into 8 equal parts, with 3 parts shaded per unit:



What is $2 \times \frac{3}{8}$?

- | | |
|--|--|
| <input type="checkbox"/> A. $\frac{2}{3}$ | <input type="checkbox"/> C. $\frac{5}{8}$ |
| <input type="checkbox"/> B. $\frac{6}{16}$ | <input type="checkbox"/> D. $\frac{6}{8}$ or $\frac{3}{4}$ |



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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

- 1) **Choice D is correct.** **(5.NO.NBT.4)** Round 26 up to 30 (since $6 \geq 5$) and 37 up to 40 (since $7 \geq 5$). Then $30 \times 40 = 1,200$.
- 2) **Choice A is correct.** **(5.GM.M.3)** The base area is $12 \times 7 = 84$ square centimeters. Since $420 \div 84 = 5$, the height is 5 cm.
- 3) **Choice D is correct.** **(5.GM.M.3)** Find each part first: Prism A is $5 \times 4 \times 4 = 80$ cubic meters, and Prism B is $6 \times 2 \times 4 = 48$ cubic meters. Because the parts do not overlap, add them: $80 + 48 = 128$ cubic meters.
- 4) **Choice B is correct.** **(5.AR.OA.2)** Multiplication and division come first: $12 \times 5 = 60$ and $10 \div 2 = 5$. Then finish left to right: $60 - 5 + 3 = 58$.
- 5) **Choice C is correct.** **(5.NO.NBT.2)** This addresses the misconception that more digits means a bigger number. Both equal 8 tenths or 80 hundredths.
- 6) **The correct answer is 2.** **(5.GM.G.3)** For each point, $2 \div 1 = 2$, $4 \div 2 = 2$, and $6 \div 3 = 2$.
- 7) **Choice A is correct.** **(5.GM.M.3)** Use the rectangular-prism volume formula: $7 \times 3 \times 3 = 63$. So the volume is 63 cubic centimeters.
- 8) **Choice C is correct.** **(5.GM.G.3)** The base connects (2, 1) and (8, 1), which are on the same horizontal line. The length is $8 - 2 = 6$ units.
- 9) **The correct answer is $\frac{1}{12}$.** **(5.GM.M.2)** Splitting into 3 rows and 4 columns gives 12 equal parts; the overlapping region is 1 of those parts: $\frac{1}{12}$.
- 10) **Choice D is correct.** **(5.NO.NF.3)** LCD = 12. $\frac{3}{4} = \frac{9}{12}$; $\frac{1}{3} = \frac{4}{12}$. $\frac{9}{12} - \frac{4}{12} = \frac{5}{12}$.
- 11) **The correct answer is 2.** **(5.AR.OA.5)** Compare: $4 = 2 \times 2$, $8 = 2 \times 4$, etc. Each B term is 2 times its A term.
- 12) **The correct answer is $3\frac{7}{8}$.** **(5.NO.NF.3)** Wholes: $2 + 1 = 3$. Fractions: $\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$. Total: $3\frac{7}{8}$.
- 13) **Choice A is correct.** **(5.GM.G.1)** Two equal sides make the triangle isosceles. One right angle makes it a right triangle, so the name is right isosceles triangle.
- 14) **Choice D is correct.** **(5.NO.NBT.7)** Multiplying by 100 makes the value 100 times as large. The decimal moves two places right, so $0.12 \times 100 = 12$.
- 15) **Choice C is correct.** **(5.GM.G.1)** The table shows a square has right angles (like rectangles) and all equal sides (like rhombuses). That is why a square fits both families.
- 16) **The correct answer is $\frac{1}{18}$.** **(5.NO.NF.4)** $\frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$.
- 17) **Choice A is correct.** **(5.NO.NBT.7)** A power of 10 tells how many factors of 10 to use. In order: 100, 300, 2000, 10000. This confirms the answer.
- 18) **Choice D is correct.** **(5.NO.NF.3)** $\frac{7}{8} \approx 1$ and $\frac{3}{9} = \frac{1}{3} \approx \frac{1}{2}$. So $\frac{7}{8} - \frac{3}{9} \approx 1 - \frac{1}{2} = \frac{1}{2}$.
- 19) **Choice D is correct.** **(5.NO.NF.2)** $18 \times \frac{2}{3} = 12$ feet. Multiplying by $\frac{2}{3}$ (less than 1) scales the length down by one-third.
- 20) **Choices A, B are correct.** **(5.DPS.D.1)** The value $\frac{1}{2}$ appears two times, more than any other value. There are four measurements total, so C and D do not fit the data.
- 21) **Choice B is correct.** **(5.GM.M.3)** The base area is $9 \times 8 = 72$ square meters. Since $360 \div 72 = 5$, the aquarium is 5 m deep.
- 22) **Choice B is correct.** **(5.NO.NBT.5)** Multiplying by 10 shifts the decimal point 1 place to the right. For example, $3.4 \times 10 = 34$.
- 23) **Choice A is correct.** **(5.NO.NF.4)** Eating 7 slices means 7 groups of $\frac{1}{10}$ of a pizza: $7 \times \frac{1}{10} = \frac{7}{10}$.
- 24) **Choice A is correct.** **(5.NO.NF.2)** Multiplying by a fraction less than 1 always produces a smaller result. Since $\frac{2}{3} < 1$, we know $\frac{2}{3} \times 24 < 24$ without calculating.
- 25) **Choice B is correct.** **(5.NO.NBT.7)** The basic fact is $7 \times 8 = 56$. The factors 700 and 80 have three zeros total, so the product is 56,000.
- 26) **Choice C is correct.** **(5.GM.M.3)** A 5 by 3 layer has 15 cubes. With 4 layers, $15 \times 4 = 60$ unit cubes.
- 27) **Choice D is correct.** **(5.NO.NBT.7)** The student forgot the key concept: dividing by powers of 10 requires shifting the decimal point left. The correct answer is $8,300 \div 1,000 = 8.3$.



Smart Habits

Dear Student,

★ Seven tests helped you practice smart habits. Smart habits are small actions that make a big difference—like reading carefully, writing steps, and checking answers. ★

◇ **Here's the truth:** students who use good habits often outperform students who rush, even if they are “fast.” ◇

Four Helpful Habits

- **Neat work:** line up numbers and keep steps clear.
- **Circle units:** minutes, dollars, inches, and more.
- **Estimate:** a quick estimate catches big mistakes.
- **Double-check:** reread the question before you finish.

You practiced these habits across seven tests—now use them with confidence.

Email me at reza@testinar.com anytime.

Reza Nazari & Jay Daie

Your Math Coaches (Good Habits = Success)

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PRACTICE TODAY. PERFORM TOMORROW.

Success in math starts with practice! This book provides the **practice, confidence, and skills** your child needs to excel on the Grade 5 Math test and beyond.

KEY BENEFITS:



TARGETED PRACTICE

Focus on the most important Grade 5 math skills.



STANDARD-ALIGNED

All tests align with state standards for Grade 5.



BUILD CONFIDENCE

Strengthen skills, reduce test anxiety, and boost confidence.



IMPROVE PERFORMANCE

Timed practice helps improve speed and accuracy.



ACHIEVE SUCCESS

Develop strong test-taking skills and achieve your best score!

PERFECT FOR:

✓ Classroom Practice

✓ Homework Help

✓ Test Preparation

✓ Summer Learning

✓ On-the-Go Practice

✓
PRACTICE
PREPARE
SUCCEED



STRONG SKILLS. BRIGHT FUTURE.

Give your child the tools they need to succeed in math and in life!



Visit testinar.com/math5 for more Grade 5 math resources and practice materials!



TRUSTED
BY PARENTS

Quality resources you can trust.



DESIGNED
FOR SUCCESS

Proven practice for real results.



SUPPORT
YOUR CHILD

Every step of the way.