

4 North Dakota NDSA

GRADE
6
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

4

PRINTED
TESTS



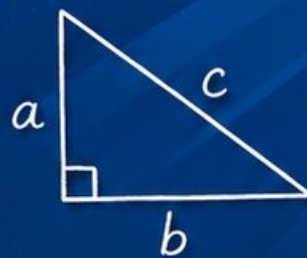
2

ONLINE
TESTS



- ✓ Build Confidence
- ✓ Master Key Math Skills
- ✓ Answer Explanations for Every Question
- ✓ Test-Taking Strategies That Work

$$2x + 5 = 21$$
$$x = 8$$



$$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$$

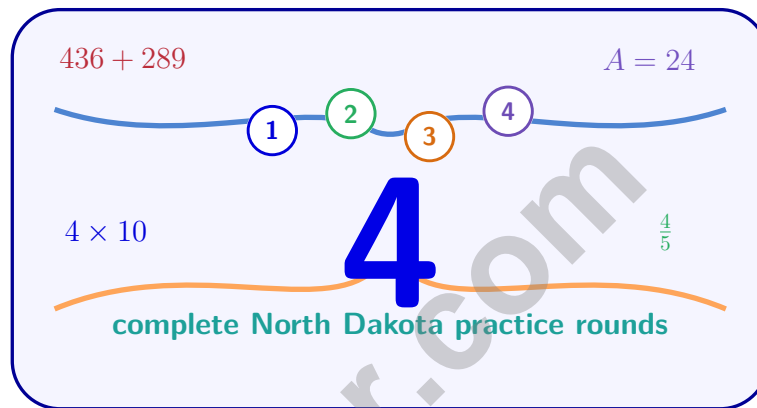


USE THESE TWO
**ADDITIONAL ONLINE
PRACTICE TESTS**

FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.

4 North Dakota NDSA Grade 6 Math Practice Tests

Standards-Aligned Northern Plains Test Focus for North Dakota State Assessment



Four complete 40-question Grade 6 practice rounds for NDSA, built for northern plains test focus with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

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Welcome, North Dakota Math Explorer!

Four focused rounds using northern plains test focus

This book gives you four full Grade 6 practice tests for NDSA. Each round uses prairie roads, river breaks, and patient calculation as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your North Dakota Practice Promise

Keep the work steady: read, set up, solve, and compare the answer to the question.

Read

Plan

Check

How to Use This Book

A four-session routine for northern plains test focus

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

North Dakota review rhythm: Use each test as a field note, then practice the skills that need the most attention.



What Is Inside?

Four NDSA tests, 160 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building and final stamina rounds with expressions, equations, geometry, data, and problem models.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Northern plains test focus means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

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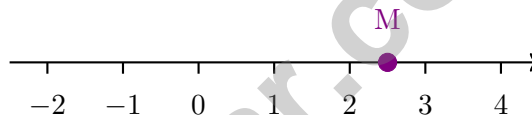
1) In the expression $4x - 7$, what does the variable x represent if the expression models “four times a number minus seven”?

- A. Four C. The unknown number
 B. Seven D. The result

2) A stock price decreased by \$18. How much did it decrease in absolute value?

- A. -18 dollars C. 36 dollars
 B. 0 dollars D. 18 dollars

3) The number line below shows tick marks at each integer. Point M is marked on the line. What is the coordinate of point M?



- A. 2.5 C. 2
 B. 2.25 D. 3

4) A point is on the y -axis between Quadrants I and II. Which of the following could be its coordinates?

- A. $(0, -3)$ C. $(4, 0)$
 B. $(0, 4)$ D. $(-4, 0)$



5) What is the distance between the points $(-3, 4)$ and $(-3, -2)$ on the coordinate plane?

A. 4 units

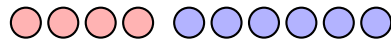
C. 6 units

B. 5 units

D. 7 units

6) Which chip model shows $-4 + 6$? (Red chips = -1 , Blue chips = $+1$)

Model A: 4 red + 6 blue



Model B: 3 red + 5 blue



A. Model A; answer is 2

C. Model A; answer is 10

B. Model B; answer is 2

D. Model B; answer is 8

7) If 15 out of 50 marbles are red, what percent are red?

8) A rectangular prism has volume 120 cm^3 , width 5 cm, and height 4 cm. What is its length?

A. 4 cm

C. 8 cm

B. 6 cm

D. 15 cm



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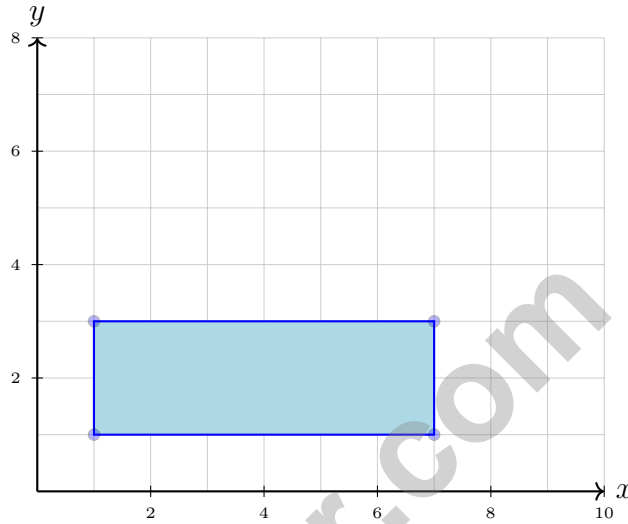
9) A rectangle has a perimeter of 28 units. If the length is 9 units, what is the width?

A. 4 units

C. 6 units

B. 5 units

D. 7 units



10)

What is the area of the rectangle shown?

A. 10 square units

C. 16 square units

B. 12 square units

D. 18 square units



1)

Category	Amount (\$)
Rent	1200
Food	400
Utilities	250
Entertainment	150

Based on the table, what is the total monthly budget?

- A. \$1400 C. \$2000
 B. \$1650 D. \$2200

2) The data set is: 5, 8, 10, 12, 15, 18, 20, 22, 25, 28. Find the interquartile range (IQR).
Hint: $Q_1 = 10$, $Q_3 = 23$.

3) A box plot has the following values: $\text{min} = 10$, $Q_1 = 20$, $\text{median} = 26$, $Q_3 = 32$, $\text{max} = 45$. Which is the IQR?

- A. 6 C. 22
 B. 12 D. 35



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4) A library tracks borrowing patterns for fiction books. The checkout times (days) for 12 books are: 5, 7, 7, 8, 9, 10, 11, 12, 14, 15, 18, 25. Which measure should the librarian use to decide the typical checkout duration?

- A. Mean, to include all books
 B. Range, to see the spread
 C. Mode, because most books are returned
 D. Median, because the 25-day outlier is unrepresentative

5) A container has 15 balls: 5 red, 4 blue, 3 yellow, and 3 green. If one ball is drawn at random, what is the probability it is **not** red?

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

6) A data set contains: 43, 48, 45, 52, 50, 47, 54, 51. A student claims the stem 4 has 4 leaves. Is this claim correct?

Stem	Leaf
4	3, 5, 7, 8
5	0, 1, 2, 4

- A. Yes, because 43, 45, 47, 48 are in the 40s
 B. No, because one value is missing
 C. Yes, but some leaves are ordered incorrectly
 D. No, there are only 3 leaves in stem 4



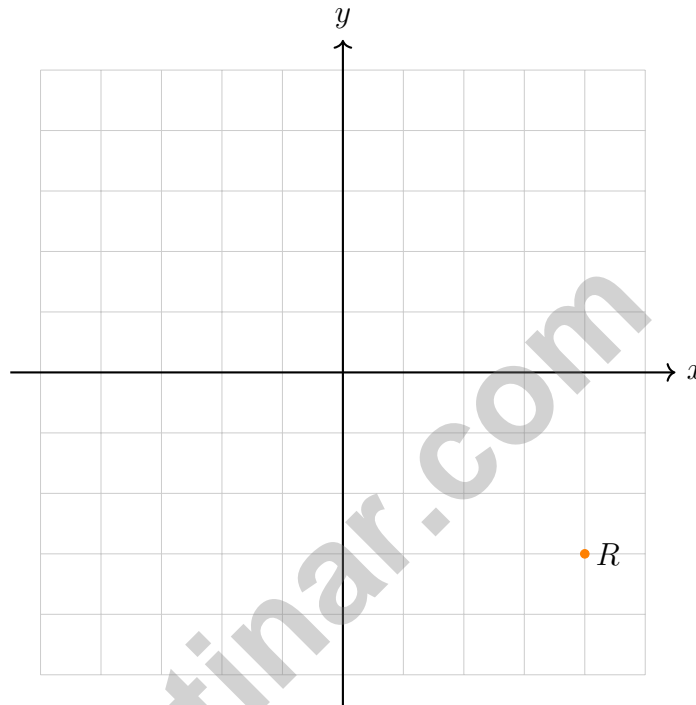
6) Which statement is true?

A. $-10 < -5$

B. $-5 > 0$

C. $-3 > -8$

D. $0 < -1$



7)

Point R is reflected across the y -axis. In which quadrant does the reflected point lie?

A. Quadrant I

B. Quadrant II

C. Quadrant III

D. Quadrant IV

8) Which of these is the distance between $(-7, -3)$ and $(-7, 4)$?

A. 7 units

B. 11 units

C. 1 unit

D. 4 units



North Dakota NDSA Practice Test Answer Keys

How to use this North Dakota NDSA answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to northern plains test focus
3. rework the problem before reading the full explanation, using this reminder:
Keep the work steady: read, set up, solve, and compare the answer to the question.

A calm North Dakota correction routine turns every missed item into useful practice. Use each test as a field note, then practice the skills that need the most attention.



North Dakota Practice Test Answers and Explanations

Review the four printed NDSA tests with patient, focused, and ready for the next checkpoint habits.

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.DPS.D.4)** The variable x represents the unknown number being multiplied by 4 and decreased by 7.
- 2) **Choice D is correct.** **(6.NO.NS.2)** A decrease of \$18 is represented as -18 . The absolute value $|-18| = 18$ dollars represents the magnitude of the change.
- 3) **Choice A is correct.** **(6.NO.NS.1)** Point M is halfway between 2 and 3, which is 2.5 or $2\frac{1}{2}$.
- 4) **Choice B is correct.** **(6.GM.GF.1)** A point on the y -axis between Quadrants I (upper right) and II (upper left) must have $x = 0$ and positive y . The point $(0, 4)$ satisfies these conditions.
- 5) **Choice C is correct.** **(6.GM.GF.2)** The x -coordinates are the same, so subtract the y -coordinates: $|4 - (-2)| = |4 + 2| = 6$ units.
- 6) **Choice A is correct.** **(6.AR.RP.3)** $-4 + 6$: use 4 red and 6 blue chips. Pair and remove red-blue pairs. Result: 2 blue chips remaining, so $-4 + 6 = 2$.
- 7) **The correct answer is 30%.** **(6.AR.RP.4)** $\frac{15}{50} = \frac{30}{100} = 30\%$ (multiply numerator and denominator by 2).
- 8) **Choice B is correct.** **(6.GM.AV.2)** From $V = L \times W \times H$, we have $120 = L \times 5 \times 4$. So $L = 120 \div 20 = 6$ cm.
- 9) **Choice B is correct.** **(6.GM.GF.2)** Perimeter = $2(\text{length} + \text{width})$, so $28 = 2(9 + w)$, which gives $14 = 9 + w$, thus $w = 5$ units.
- 10) **Choice B is correct.** **(6.GM.AV.1)** Width: $7 - 1 = 6$ units. Height: $3 - 1 = 2$ units. Area = $6 \times 2 = 12$ square units.
- 11) **Choice D is correct.** **(6.GM.GF.3)** In this cross net with an extension (T above U), L and R are on opposite ends of the center row. When folded, L is opposite to R .
- 12) **Choice A is correct.** **(6.GM.GF.2)** Reflection over the y -axis changes the sign of the x -coordinate: $(6, 2) \rightarrow (-6, 2)$.
- 13) **The correct answer is 120.** **(6.AR.RP.4)** 25% of $480 = 0.25 \times 480 = 120$ products were sold online.
- 14) **Choice B is correct.** **(6.NO.O.3)** Divide by the scale: $32 \div 4 = 8$ inches.
- 15) **Choice D is correct.** **(6.NO.NS.2)** $M = 2$ and $N = 7$. Since $2 < 7$, we have $M < N$.
- 16) **Choice D is correct.** **(6.NO.O.3)** Positive times negative is negative: $9 \times (-4) = -36$.
- 17) **Choice A is correct.** **(6.AR.RP.3)** Calories burned = $8 \times \text{minutes}$. Check: $10 \text{ min} \rightarrow 8(10) = 80$ calories; $20 \text{ min} \rightarrow 8(20) = 160$ calories.
- 18) **Choice D is correct.** **(6.DPS.D.4)** Entertainment is 15% of the budget. 15% of $\$1000 = 0.15 \times 1000 = \150 .
- 19) **Choice C is correct.** **(6.DPS.D.2)** Available: $100\% - 35\% = 65\%$ of $\$400 = 0.65 \times 400 = \260 .
- 20) **Choice C is correct.** **(6.NO.O.3)** Invert the divisor $\frac{2}{3}$ to get $\frac{3}{2}$, then multiply: $\frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = \frac{6}{5}$.
- 21) **Choice A is correct.** **(6.NO.O.1)** $9,504 \div 32 = 297$ exactly. Verify: $32 \times 297 = 9,504$.
- 22) **The correct answer is The unit rate is 25 items per hour, and the y-value when $x = 1$ is 25.** **(6.AR.RP.3)** A is correct because $50 \div 2 = 25$ items per hour. D is correct because when $x = 1$, $y = 25$. Choice B is false for a proportional relationship, Choice C should be $y = 25x$, and Choice E is false.
- 23) **Choice A is correct.** **(6.NO.O.2)** Add: $2.25 + 3.75 = 6.0$ km.
- 24) **Choice B is correct.** **(6.NO.O.4)** $100 = 4 \times 25 = (2 \times 2) \times (5 \times 5) = 2^2 \times 5^2$. Options A, C, and D use composite numbers.
- 25) **Choice A is correct.** **(6.NO.O.4)** If $9(2 + 7) = 9 \cdot 2 + 9 \cdot 7 = 18 + 63$, then the missing factor is 9.
- 26) **Choice D is correct.** **(6.NO.NS.2)** A negative number means the value is below zero. Since the temperature is -12°C , it is 12 degrees below zero.
- 27) **Choice D is correct.** **(6.AR.EE.3)** The valley is 1,200 m lower than the peak: $3,600 - 1,200 = 2,400$ m.



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Hi, Math Champion!

◇ Look what you did! 4 full practice tests. That's hundreds of math problems. You started as a learner. You are now a math athlete. ◇

★ **Champions know:** hard work pays off. You did the hard work. Your math skills are strong because you practiced. ★

Champion's Stats

- **Focus:** HIGH! You stay on task.
- **Speed:** STRONG! You move at the right pace.
- **Accuracy:** SHARP! You catch your own mistakes.
- **Mindset:** CHAMPION! You believe in yourself.

Champion tip: on test day, walk in proud. You trained for this. You are ready!

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

Jay Daie

Your Math Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 full-length Math practice tests and 2 online tests to help Grade 6 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

THIS BOOK INCLUDES:

4 Full-Length
Printed Tests

2 Online Practice
Tests

 Detailed Answer
Explanations

 **MORE PRACTICE.
GREATER RESULTS.**

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL GAIN



Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ And More!



2 ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.



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