

GRADE

6

MATH

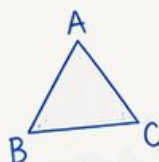
6

North Dakota NDSA

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$2x + 3 = 11$



$7^2 = 49$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



6 PRINTED TESTS + 2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills

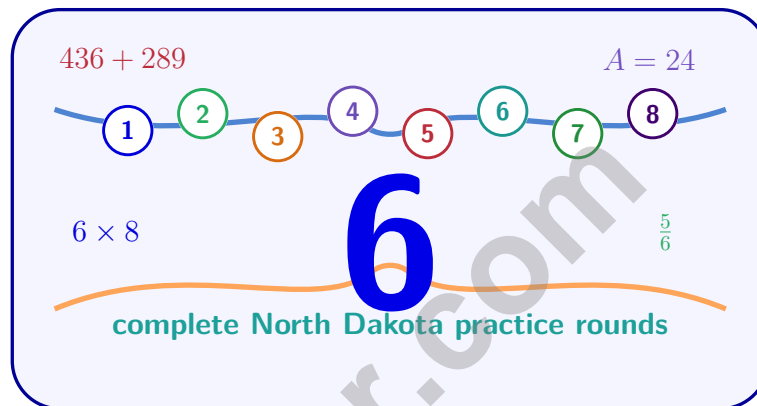


SUCCEED

Build confidence and achieve your best

6 North Dakota NDSA Grade 6 Math Practice Tests

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



Six 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!

Eight focused rounds using northern plains test focus

This book gives you six 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 six-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?

Eight NDSA tests, 320 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 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	Final stamina round for mixed review, neat work, and flexible strategy choices.
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) Three students propose questions about movies. Which is statistical?

- A: “How long is the movie Frozen?”
- B: “How long are animated movies?”
- C: “When was the movie Frozen released?”

- A. Question A C. Question C
 B. Question B D. None of them

2) A cell phone plan costs \$40 per month plus \$0.10 per text message. If t is the number of text messages, which expression shows the monthly cost?

- A. $40t + 0.10$ C. $0.10 + 40t$
 B. $40 + 0.10t$ D. $40 - 0.10t$

3) A video game shows a player’s score history. The player started at 0, gained 50 points, lost 35 points, and then gained 20 points. What is the final score?

- A. 85 points C. 70 points
 B. 35 points D. 50 points

4) After simplifying $4x + 7 + 2x - 3$, what is the coefficient of x ?



10) Evaluate $\frac{2x+6}{2}$ when $x = 3$.

A. 3

C. 5

B. 4

D. 6

11) Solve for x : $\frac{x}{9} = 3$

A. $x = 3$

C. $x = 27$

B. $x = 12$

D. $x = 0.33$

12) An airline allows carry-on baggage with weight greater than 0 pounds but not exceeding 50 pounds. Which compound inequality represents the allowed weight w ?

A. $0 < w \leq 50$

C. $0 < w < 50$

B. $0 \leq w < 50$

D. $0 \geq w$ and $w \leq 50$

13) Which inequality correctly describes “no more than 12”?

A. $x > 12$

C. $x \leq 12$

B. $x < 12$

D. $x \geq 12$

14) A wooden block has dimensions $2\frac{1}{4}$ in by 2 in by 3 in. What is its volume?

A. 7.25 in^3

C. 14.5 in^3

B. 13.5 in^3

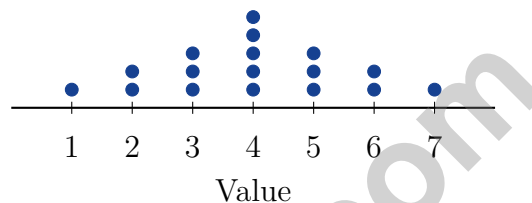
D. 18.5 in^3



1) A road is 5 kilometers long. How many meters long is the road? (Use 1 kilometer = 1000 meters.)

- A. 500 meters C. 50,000 meters
 B. 5000 meters D. 5 meters

2) A dot plot represents data with a clear peak at one value, with frequencies gradually decreasing on both sides. Which term best describes this shape?



A. Bimodal C. Skewed left
 B. Symmetric D. Skewed right

3) A histogram shows weights of 20 students. The shape is roughly symmetric. Which summary best describes the center?

- A. The mean, because symmetric data has mean \approx median. C. The mode, because it is the most common value.
 B. The median, because it is resistant to outliers. D. The range, because it spans the entire data.

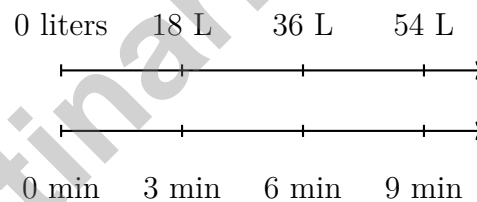
4) A classroom has 28 students. If 7 students ride the bus, what is the probability that a randomly selected student does **not** ride the bus?

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



- 1) What is the volume of a rectangular prism with length 6 in, width 4 in, and height 2 in?
- A. 12 in^3 C. 36 in^3
 B. 24 in^3 D. 48 in^3
- 2) Class A has range 10 and Class B has range 15. By how much is Class B's range greater?

- 3) A garden hose fills containers at a steady rate.



What is the unit rate in liters per minute?

- A. 4 L/min C. 6 L/min
 B. 5 L/min D. 9 L/min



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- 4) A toy store stocks action figures and dolls in a ratio of 5 : 6. If the store has 30 action figures, how many dolls does it have?

Action Figures	Dolls
5	6
10	12
30	?

- A. 35 C. 40
 B. 36 D. 45
- 5) A recipe needs $\frac{1}{4}$ cup of oil. What percent of a cup is this?
- A. 14% C. 50%
 B. 25% D. 75%
- 6) Compare -3.5 and -3.75 . Which symbol makes the statement true?

$$-3.5 \square - 3.75$$

- A. $<$ C. $=$
 B. $>$ D. Cannot determine
- 7) What is the difference between the population and the sample?
- A. The population is smaller than the sample.
 B. The population is the entire group being studied; the sample is a subset that is surveyed.
 C. The population is the number of people; the sample is the data.
 D. There is no difference.



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.



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North Dakota Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **(6.DPS.D.1)** Animated movies have different lengths, requiring data collection. Questions A and C have single fixed answers (one movie's specific length and release date).
- 2) **Choice B is correct.** **(6.DPS.D.4)** Base cost is \$40. Each text costs \$0.10, so t texts cost $0.10t$. Total: $40 + 0.10t$.
- 3) **Choice B is correct.** **(6.NO.NS.2)** Starting at 0: $+50 - 35 + 20 = 35$ points.
- 4) **The correct answer is 6.** **(6.AR.EE.3)** Combine like terms: $4x + 2x = 6x$.
- 5) **Choice B is correct.** **(6.NO.NS.1)** Reading from the number line, point B is located at the tick mark labeled -2 .
- 6) **Choice A is correct.** **(6.GM.GF.2)** Distance on grid: $|10 - 2| = 8$ units. Actual distance: $8 \times 50 = 400$ meters.
- 7) **Choice A is correct.** **(6.AR.RP.3)** $a + b - (-3) = -10 + 7 + 3 = 0$.
- 8) **Choice D is correct.** **(6.AR.EE.2)** "The quotient of b and 6" is $\frac{b}{6}$. "4 more than" that quotient means add 4: $4 + \frac{b}{6}$.
- 9) **Choice D is correct.** **(6.AR.EE.3)** The term $25d$ represents the daily charge (25 per day) multiplied by the number of days. The constant 50 is the separate deposit.
- 10) **Choice D is correct.** **(6.AR.EE.3)** Substitute $x = 3$: $\frac{2(3)+6}{2} = \frac{6+6}{2} = \frac{12}{2} = 6$.
- 11) **Choice C is correct.** **(6.AR.EE.4)** Multiply both sides by 9: $x = 3 \times 9 = 27$.
- 12) **Choice A is correct.** **(6.AR.EE.6)** "Greater than 0" gives $w > 0$. "Not exceeding 50" means at most 50: $w \leq 50$. Together: $0 < w \leq 50$.
- 13) **Choice C is correct.** **(6.AR.EE.6)** "No more than" means "less than or equal to," so the inequality is $x \leq 12$.
- 14) **Choice B is correct.** **(6.GM.AV.2)** $V = 2.25 \times 2 \times 3 = 4.5 \times 3 = 13.5 \text{ in}^3$.
- 15) **Choice B is correct.** **(6.GM.GF.2)** The parallel sides are at $y = 2$ and $y = 6$. Height = $6 - 2 = 4$ units.
- 16) **Choice C is correct.** **(6.GM.AV.1)** Base: $10 - 2 = 8$ units. Height: $8 - 2 = 6$ units. Area = $\frac{1}{2} \times 8 \times 6 = 24$ square units.
- 17) **Choice D is correct.** **(6.GM.GF.3)** When all linear dimensions are scaled by a factor of 2, surface area scales by a factor of $2^2 = 4$.
- 18) **The correct answer is 36.** **(6.AR.RP.3)** Multiply $3 \times 12 = 36$.
- 19) **Choice C is correct.** **(6.GM.GF.2)** Reflection over the y -axis negates the x -coordinate: $-5 \rightarrow 5$.
- 20) **Choice C is correct.** **(6.DPS.D.4)** The value 50 is far separated from the other values, which cluster between 5 and 12. It is an outlier that would affect the mean significantly.
- 21) **The correct answer is GCF of 16 and 24 is 8; prime factorization of 40 is $2^3 \times 5$.** **(6.NO.O.4)** Statement A: Factors of 16 are 1, 2, 4, 8, 16 and factors of 24 are 1, 2, 3, 4, 6, 8, 12, 24; the GCF is 8 (TRUE). Statement B: LCM of 5 and 7 is 35, not 12 (FALSE). Statement C: $40 = 8 \times 5 = 2^3 \times 5$ (TRUE). Statement D is missing factor 10. Statement E is false because the LCM of 6 and 10 is 30.
- 22) **Choice D is correct.** **(6.DPS.D.2)** With 7 values, the median is the 4th value when ordered: 0.5, 0.8, 1.2, 1.5, 2.5, 2.8, 3.1. Median is 1.5.
- 23) **Choice C is correct.** **(6.DPS.D.2)** Range depends only on the extreme values (max and min), so an outlier directly changes the range. The IQR ignores extremes, and MAD is less sensitive.
- 24) **Choice A is correct.** **(6.DPS.D.4)** Calculate: $(3 \times 5) + (2 \times 6) + (4 \times 7) + (1 \times 8) = 15 + 12 + 28 + 8 = 63$ goals.
- 25) **The correct answer is 99.** **(6.GM.AV.1)** $A = \frac{1}{2} \times 11 \times 18 = 99 \text{ in}^2$.
- 26) **Choice D is correct.** **(6.AR.RP.1)** $IQR = Q_3 - Q_1 = 30 - 18 = 12$.



Scan me!
For more practice
& answers

Hi, Math Pilot!

◇ 6 flights done in your math airplane. You have flown through smooth skies and bumpy clouds. You are a real pilot now. ◇

★ **Pilots know:** a good check before takeoff makes a smooth flight. Before each problem, do your check: read, plan, solve, verify. ★

Pilot Skills

- **Pre-Flight:** You read the question carefully.
- **Steering:** You pick the right strategy.
- **Smooth Flight:** You stay calm in long tests.
- **Landing:** You always check your final answer.

Pilot tip: on test day, take off one problem at a time. Trust your training. You earned your wings!

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

Jay Daie

Your Math Pilot

PRACTICE TODAY. SUCCEED TOMORROW!

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 6 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

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

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

WHAT STUDENTS WILL 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 aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

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



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS