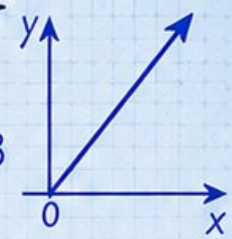
3 Nebraska NSCAS Growth

GRADE 6 MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



$y = 2x + 3$

$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$

36% of 150 = ?

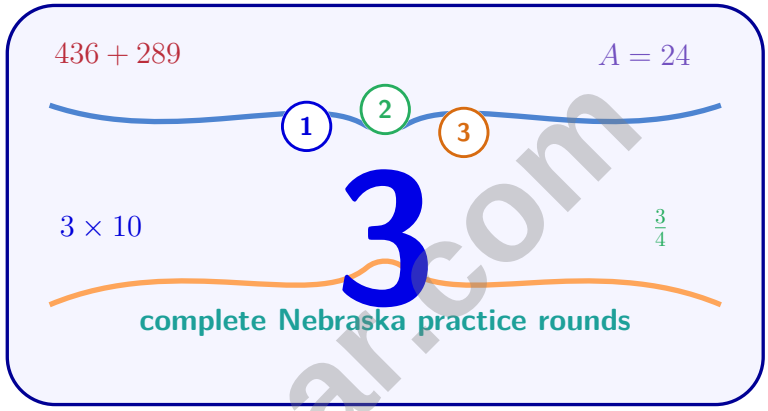
3 PRINTED TESTS

2 ONLINE TESTS

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

3 Nebraska NSCAS Growth Grade 6 Math Practice Tests

Standards-Aligned Plains-Ready Reasoning for Nebraska Student-Centered Assessment System



Three complete 40-question Grade 6 practice rounds for NSCAS Growth, built for plains-ready reasoning with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari

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Welcome, Nebraska Math Explorer!

Three focused rounds using plains-ready reasoning

This book gives you three full Grade 6 practice tests for NSCAS Growth. Each round uses straight roads, open fields, and clean calculation habits as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Nebraska Practice Promise

Keep each step in view: organize facts, solve carefully, and check for a reasonable answer.

How to Use This Book

A three-session routine for plains-ready reasoning

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

Nebraska review rhythm: Use each test as a checkpoint, then turn the growth log into the next practice plan.

What Is Inside?

Three NSCAS Growth tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Plains-ready reasoning means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

Table of Contents

1) 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. $0 < w \leq 50$
☐ B. $0 \leq w < 50$
☐ C. $0 < w < 50$
☐ D. $0 \geq w$ and $w \leq 50$

2) Which shows the distributive property correctly applied to $2(3x - 1)$?

☐ A. $2 \cdot 3x - 1$
☐ B. $6x - 2$
☐ C. $2 \cdot 3x - 2 \cdot 1$
☐ D. $3x - 2$

3) In a student club, the ratio of 6th graders to 7th graders is $4 : 6$. If there are 12 sixth graders, how many seventh graders are in the club?

4) A frequency table is created from a dot plot. The table shows: Value 2: Frequency 4; Value 3: Frequency 6; Value 4: Frequency 5; Value 5: Frequency 3. How many data points are in this data set?

Value	Frequency
2	4
3	6
4	5
5	3

☐ A. 15 data points
☐ B. 16 data points
☐ C. 17 data points
☐ D. 18 data points

5) Compare two box plots: Dataset A has median 50 and IQR 15; Dataset B has median 45 and IQR 20. Which statement is true?

☐ A. Dataset A has a higher center and less spread.
☐ B. Dataset A has a lower center and more spread.
☐ C. Both datasets have the same center.
☐ D. Dataset B is more skewed.

6) A ratio can be graphed as ordered pairs. If a ratio graph shows the points $(3, 12)$ and $(5, 20)$, what is the y-value when x = 0?

☐ A. 0
☐ B. 4
☐ C. 8
☐ D. 12

7) Write $\frac{4}{5}$ as a decimal and then as a percent.

☐ A. 0.45 and 45%
☐ B. 1.25 and 125%
☐ C. 0.04 and 4%
☐ D. 0.8 and 80%

8)

Hours	1	3	5
Miles	55	165	275

Based on the table, what is the rate in miles per hour?

9) A company's revenue was $\$500,000$ last year. This year, revenue increased by $\$75,000$. What is the percent increase?

☐ A. 10%
☐ B. 20%
☐ C. 15%
☐ D. 25%

10) A 15-ounce bottle of juice costs \$3.75. What is the price per ounce?

☐ A. \$0.20
☐ B. \$0.25
☐ C. \$0.30
☐ D. \$0.50

11) A track coach measures the sprint distance as 120 yards. What is this distance in feet?

☐ A. 180 feet
☐ B. 240 feet
☐ C. 40 feet
☐ D. 360 feet

12) Which of the following transactions uses a credit card?

☐ A. Paying with money from your bank account
☐ B. Borrowing money to pay now and paying back later
☐ C. Using a card linked directly to your bank account
☐ D. Withdrawing cash from an ATM

13) An error was found in a proportional relationship table. The equation should be $y = 6x$. Which point does NOT fit the pattern?

x	1	2	3	4
y	6	12	18	25

☐ A. $(1, 6)$ does not fit
☐ B. $(2, 12)$ does not fit
☐ C. $(3, 18)$ does not fit
☐ D. $(4, 25)$ does not fit

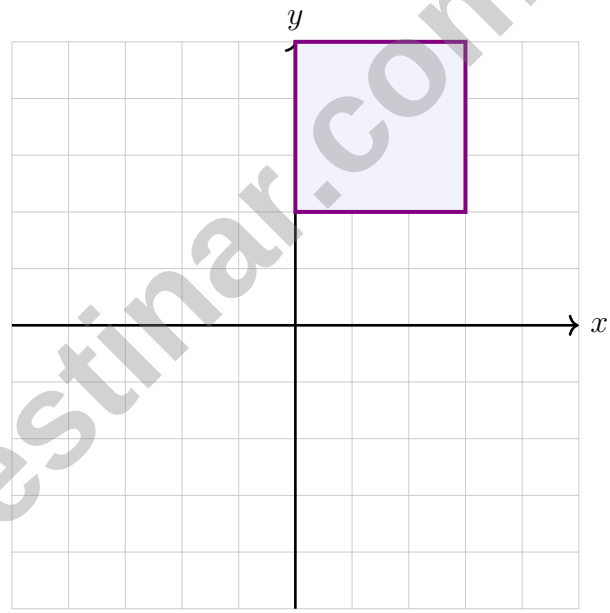
1) Solve for x: $0.5x = 7$

☐ A. $x = 3.5$
☐ B. $x = 6.5$
☐ C. $x = 7.5$
☐ D. $x = 14$

2) A rectangular prism has length 8 m, width 4 m, and height 3 m. Find the surface area.

☐ A. 96 m^2
☐ B. 152 m^2
☐ C. 192 m^2
☐ D. 288 m^2

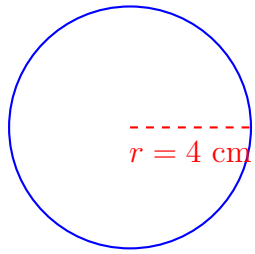
3)



A rectangle has vertices at $(0, 2)$, $(3, 2)$, $(3, 5)$, and $(0, 5)$. After reflection over the y-axis, where is the image of the vertex $(3, 2)$?

☐ A. $(-3, 2)$
☐ B. $(3, -2)$
☐ C. $(0, 2)$
☐ D. $(3, 2)$

Circle A



4)

What is the approximate area of Circle A? Use $\pi \approx 3.14$.

- ☐ A. 12.56 cm^2
- ☐ B. 25.12 cm^2
- ☐ C. 100.48 cm^2
- ☐ D. 50.24 cm^2

5) Consider these two questions:

Question A	Question B
What is the weight of my dog?	What are the weights of dogs in my neighborhood?

Which statement is correct?

- ☐ A. Both are statistical.
- ☐ B. Question A is statistical; Question B is not.
- ☐ C. Question A is non-statistical; Question B is statistical.
- ☐ D. Neither is statistical.

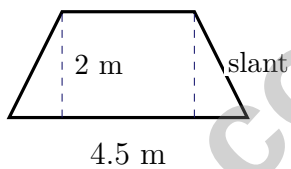
1) A bakery sells cookies in packs of 6. On Monday, they sold 36 cookies, and on Tuesday, they sold 42 cookies. How many packs did they sell in total over both days?

☐ A. 6 packs
☐ B. 10 packs
☐ C. 13 packs
☐ D. 78 packs

2) Which pair of dimensions would give a triangle an area of 48 cm^2?

☐ A. Base 6 cm, height 10 cm
☐ B. Base 8 cm, height 12 cm
☐ C. Base 10 cm, height 9 cm
☐ D. Base 16 cm, height 5 cm

3)



What is the area of the parallelogram? (The height is shown by dashed lines.)

☐ A. 4.5 m^2
☐ B. 6.5 m^2
☐ C. 9 m^2
☐ D. 13 m^2

4) A rectangular aquarium has volume 50 liters, width $\frac{5}{2}$ dm, and height 4 dm. Find the length.

☐ A. 2 dm
☐ B. 20 dm
☐ C. 10 dm
☐ D. 5 dm

5) A vertical segment goes from $(5, 2)$ to $(5, 8)$. What is its length?

☐ A. 4 units
☐ B. 5 units
☐ C. 7 units
☐ D. 6 units

6) A right triangle has base 10 units and height 8 units. What is its area?

☐ A. 40 square units
☐ B. 45 square units
☐ C. 50 square units
☐ D. 80 square units

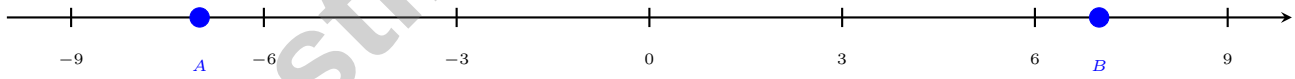
7) The distance between $(x, 7)$ and $(8, 7)$ is 5 units. Both points have the same y-coordinate. What is x?

☐ A. $x = 3$ or $x = 13$
☐ B. $x = 2$ or $x = 14$
☐ C. $x = 4$ or $x = 12$
☐ D. $x = 1$ or $x = 15$

8) Which option correctly identifies all expressions shown that have a value of -9?

☐ A. $-3 + (-6)$
☐ B. $-12 + 3$
☐ C. $5 + (-14)$
☐ D. All of the above

9)



On a number line, point A is at -7 and point B is at 7. What is the distance between them?

Nebraska NSCAS Growth Practice Test Answer Keys

How to use this Nebraska NSCAS Growth 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 plains-ready reasoning
3. rework the problem before reading the full explanation, using this reminder: Keep each step in view: organize facts, solve carefully, and check for a reasonable answer.

A calm Nebraska correction routine turns every missed item into useful practice. Use each test as a checkpoint, then turn the growth log into the next practice plan.

Nebraska Practice Test Answers and Explanations

Review the three printed NSCAS Growth tests with steady, organized, and ready for another checkpoint habits.

Practice Test 1 Answers and Explanations

1) **Choice A is correct.** 6.A.2 "Greater than 0" gives $w > 0$. "Not exceeding 50" means at most 50: $w \leq 50$. Together: $0 < w \leq 50$.
2) **Choice C is correct.** 6.A.1 The distributive property applies 2 to both terms: $2(3x - 1) = 2 \cdot 3x - 2 \cdot 1 = 6x - 2$.
3) **The correct answer is** 18. 6.A.2 The ratio of sixth graders to seventh graders is $4 : 6$, which simplifies to $2 : 3$. If 2 parts are 12 students, each part is 6, so seventh graders are $3 \times 6 = 18$.
4) **Choice D is correct.** 6.D.1 Sum the frequencies: $4 + 6 + 5 + 3 = 18$ total data points.
5) **Choice A is correct.** 6.G.1 Median measures center; IQR measures spread. Dataset A's median is higher and IQR is smaller (less spread).
6) **Choice A is correct.** 6.R.2 For a proportional relationship through the origin, when x = 0, y = 0. The unit rate is $\frac{12}{3} = 4$, so the equation is $y = 4x$. When x = 0, y = 4(0) = 0.
7) **Choice D is correct.** 6.N.1 $\frac{4}{5} = \frac{80}{100} = 0.8 = 80\%$.
8) **The correct answer is** 55 **miles per hour.** 6.G.1 Divide miles by hours: $55 \div 1 = 55$ miles per hour (or $165 \div 3 = 55$).
9) **Choice C is correct.** 6.N.1 Percent increase is $\frac{75000}{500000} = \frac{75}{500} = \frac{3}{20} = 0.15 = 15\%$.
10) **Choice B is correct.** 6.N.1 Unit price: $3.75 \div 15 = 0.25$ dollars per ounce.
11) **Choice D is correct.** 6.G.3 Multiply: $120 \times 3 = 360$ feet.
12) **Choice B is correct.** 6.D.1 A credit card allows you to borrow money and pay it back later. Options A, C, and D describe debit transactions or cash withdrawals.
13) **Choice D is correct.** 6.N.1 For $y = 6x$: when $x = 4$, $y = 6(4) = 24$, not 25. The point should be $(4, 24)$.
14) **Choice C is correct.** 6.D.2 Budget A total: $\$900 + \$300 + \$200 + \$100 = \$1500$. Budget B total: $\$700 + \$250 + \$200 + \$100 = \$1250$. Difference: $\$1500 - \$1250 = \$250$.
15) **Choice D is correct.** 6.D.2 The pattern shows $1'' = 9$ ft. So $4'' = 4 \times 9 = 36$ ft.
16) **Choice C is correct.** 6.D.3 Invert the divisor $\frac{2}{3}$ to get $\frac{3}{2}$, then multiply: $\frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = \frac{6}{5}$.
17) **Choice B is correct.** 6.A.1 $4{,}368 \div 21 = 208$. Verify: $21 \times 208 = 4{,}368$.
18) **The correct answer is** $4 : 6 = 2 : 3$ **(dividing by 2) and** $4 : 6 = 8 : 12$ **(multiplying by 2).**. 6.G.3 Nice checking: Choice A works because $4 : 6$ simplifies to $2 : 3$, and Choice B works because multiplying both parts of $4 : 6$ by 2 gives $8 : 12$. The other choices change the relationship.
19) **The correct answer is** \$405. 6.A.1 Unit rate: $\$360 \div 40 = \$9$ per hour. Total hours: $40 + 5 = 45$ hours. Total earnings: $45 \times \$9 = \$405$.
20) **Choice A is correct.** 6.N.2 Align the decimal points. In the tenths place, 6 is smaller than 8, so regroup one whole as ten tenths: the 5 becomes 4 and the tenths become 16. Then $16 - 8 = 8$ tenths, $4 - 3 = 1$ one, and $2 - 1 = 1$ ten, so the result is 11.8.
21) **Choice A is correct.** 6.G.3 Prime factors: $6 = 2 \times 3$ and $9 = 3^2$. The LCM uses each prime the greatest number of times: $2 \times 3^2 = 18$.
22) **Choice D is correct.** 6.A.1 A, B, and C all peel out different-but-valid common factors (8, 4, 2) yet land on $40 + 24$ every time—that is flexibility the distributive property gives you.
23) **Choice B is correct.** 6.G.2 Below sea level is represented by a negative integer. A depth of 25 meters below sea level is -25 meters.
24) **Choice A is correct.** 6.D.2 The absolute value $|-45| = 45$ represents the magnitude. A negative balance means a debt or overdraft of \$45.
25) **The correct answer is** 200. 6.N.1 The rate is $2 : 50$ or $1 : 25$. For 8 months: $8 \times 25 = \$200$.
26) **Choice D is correct.** 6.N.1 In decimal form: $-1.5 < -1 < -0.5$. The more negative the number, the smaller it is.

Hi, Math Builder!

◇ Through 3 practice tests, you built your math house brick by brick. The walls are strong. The roof is on. You are ready for anything test day brings. ◇

⋆ **Builders know:** good plans make strong houses. You learned to plan, then build. That helps with any problem. ⋆

Builder's Tools

- **Foundation:** ROCK SOLID. Math facts are in place.
- **Frame:** STRONG. You can break problems into parts.
- **Walls:** TIDY. Your work is neat and clear.
- **Roof:** DONE. You always answer the question.

Builder tip: on test day, build each answer like a tiny house. Read first. Plan next. Do the math. Then check!

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

Jay Daie

Your Math Builder

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 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:

- 3 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
- The Number System
- Expressions & Equations
- Geometry
- Fractions & Decimals
- Percents
- Statistics & Probability
- Data Analysis
- Measurement & Conversions
- 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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PRACTICE REGULARLY | STAY FOCUSED | SOLVE CONFIDENTLY | SUCCEED BRIGHTLY

PREPARE TODAY. SUCCEED TOMORROW!