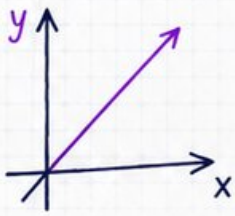
3 Nebraska NSCAS Growth

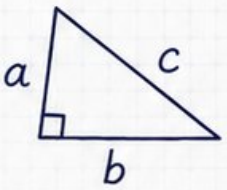
GRADE 7 MATH

PRACTICE TESTS

- Standards Aligned
- Problem Solving
- For Comprehensive Assessment Programs



$y = mx + b$



$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$

$3(x-2) = 2x+5$

3 PRINTED TESTS

2 ONLINE TESTS

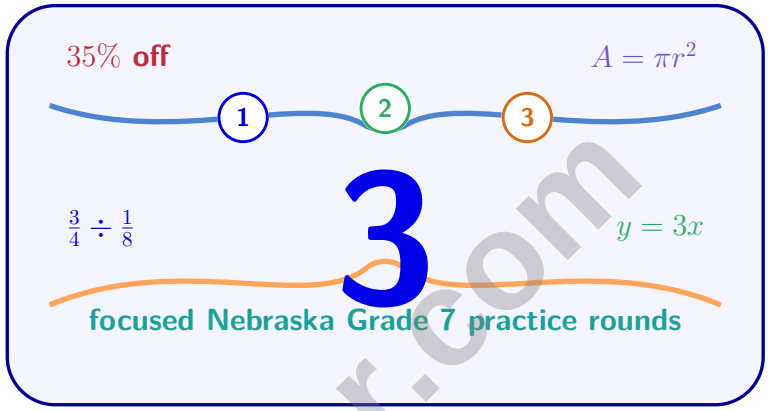
USE THESE TWO ADDITIONAL ONLINE PRACTICE TESTS

FOR EXTRA REVIEW AFTER THE PRINTED TESTS IN THIS BOOK.

- Build Confidence
- Strengthen Math Skills
- Detailed Answers & Explanations
- Improve Test Performance

3 Nebraska NSCAS Growth Grade 7 Math Practice Tests

NSCAS Growth Math Prep with Keys, Explanations, and Review



Three complete 40-question Grade 7 NSCAS Growth practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari

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Welcome, Nebraska Grade 7 Problem Solver!

Three focused rounds for sharper NSCAS Growth math thinking

This book gives you three full Grade 7 NSCAS Growth math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Nebraska Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

How to Use This Book

A three-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Nebraska review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.

What Is Inside?

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

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Test 3	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.

Table of Contents

1) Simplify: $(-5w - 4) - (2w - 9)$

☐ A. $-7w + 5$
☐ B. $-7w - 13$
☐ C. $-3w + 5$
☐ D. $-3w - 13$

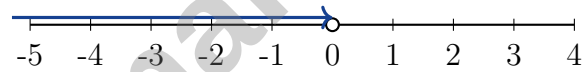
2) **Four Estimation Attempts**

Attempt	Estimate	Actual	% Error
P	84	100	?
Q	28	32	?
R	66	75	?
S	54	60	?

Which attempt has the largest percent error?

☐ A. P (16%)
☐ B. Q (12.5%)
☐ C. R (12%)
☐ D. S (10%)

3) What inequality is shown?



☐ A. $x > 0$
☐ B. $x \geq 0$
☐ C. $x < 0$
☐ D. $x \leq 0$

4) Expand: $(x + 5) \cdot (-2)$

☐ A. $-2x - 10$
☐ B. $-2x + 5$
☐ C. $2x - 10$
☐ D. $x - 10$

5) A credit card charges 12% simple interest annually. If you carry a balance of \$1500, how much interest will you owe after 6 months?

☐ A. \$45
☐ B. \$360
☐ C. \$180
☐ D. \$90

6) A student factors $-8m - 12$ and gets $-4(2m + 3)$. Is this correct?

☐ A. Yes; $-4(2m + 3) = -8m - 12$
☐ B. No; the GCF should be -2
☐ C. No; the correct factorization is $4(2m + 3)$
☐ D. No; the correct factorization is $-4(2m - 3)$

7) A large blueprint has scale 2 inches : 5 feet. What is the actual length if the blueprint shows 10 inches?

☐ A. 4 feet
☐ B. 12.5 feet
☐ C. 20 feet
☐ D. 25 feet

8) A basketball player made 16 shots. This represents 80% of her attempts. How many shots did she attempt?

☐ A. 18
☐ B. 24
☐ C. 22
☐ D. 20

9) A store sells a item for \$84 after applying a 30% markup to its cost. What was the cost?

☐ A. \$54.60
☐ B. \$114.86
☐ C. \$109.20
☐ D. \$64.62

10) The difference between two integers is -9. If one integer is 4, what is the other integer? (Hint: difference means subtract.)

11) A plane descends 2000 feet from its cruising altitude of 35000 feet. What is its new altitude? (Model as -2000 for descent.)

☐ A. 37000 feet
☐ B. 70000 feet
☐ C. -33000 feet
☐ D. 33000 feet

12) Simplify: $-3x + 5x - x + 2x$

☐ A. $3x$
☐ B. $5x$
☐ C. $9x$
☐ D. $2x$

13) Which inequality represents "a number plus 8 is less than 15"?

☐ A. $x + 8 < 15$
☐ B. $x + 8 > 15$
☐ C. $x - 8 < 15$
☐ D. $8x < 15$

14) A rectangular prism has length 7 in, width 5 in, and height 4 in. If each dimension is increased by 1 inch, by how much does the surface area increase?

☐ A. 24 in^2
☐ B. 48 in^2
☐ C. 70 in^2
☐ D. 96 in^2

1) A savings account grows from \$600 to \$684 in one year with annual compound interest. What is the interest rate?

☐ A. 10%
☐ B. 12%
☐ C. 14%
☐ D. 15%

2) When a cylinder is cut by a horizontal plane parallel to its circular bases, what is the shape of the cross-section?

☐ A. Rectangle
☐ B. Ellipse
☐ C. Circle
☐ D. Annulus (ring shape)

3)

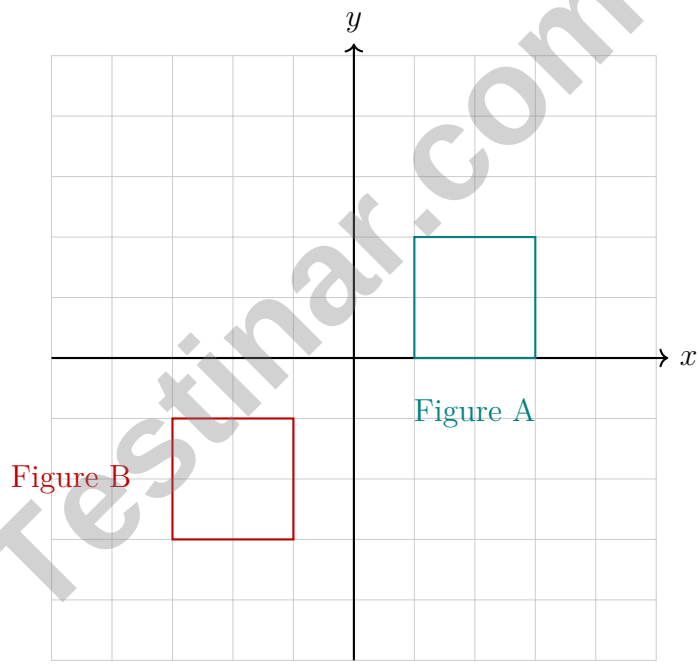


Figure A is transformed to Figure B by a single transformation. What is the transformation?

☐ A. Translation by $(-4, -2)$
☐ B. Rotation of $180°$ about the origin
☐ C. Reflection over the line $y = -x$
☐ D. Reflection over the line $y = x$

4) A savings account has \$500. If the balance decreases by 12%, how much money is left in the account?

5) A bank charges a \$5 monthly fee plus \$0.10 per check written. If a customer writes 30 checks in a month, what is the total charged in fees?

6) A scale drawing of a playground uses a scale of 1 inch = 20 feet. If the actual playground is 80 feet long, how long is the drawing?

☐ A. 2 inches
☐ B. 3 inches
☐ C. 4 inches
☐ D. 5 inches

7) A hula hoop has circumference 188.4 cm. Using $\pi \approx 3.14$, what is its radius?

☐ A. 90 cm
☐ B. 60 cm
☐ C. 15 cm
☐ D. 30 cm

8) What is the area of a circle with radius $\frac{1}{2}$ meter? Use $\pi \approx 3.14$.

☐ A. 0.785 m^2
☐ B. 1.57 m^2
☐ C. 3.14 m^2
☐ D. 6.28 m^2

1) Simplify: $7 - (-2) - 5$

☐ A. 0
☐ B. 4
☐ C. 10
☐ D. 14

2) A bag contains 3 red marbles, 5 blue marbles, and 2 green marbles. Which probability is correct?

☐ A. $P(\text{blue}) = \frac{2}{10}$
☐ B. $P(\text{red}) = \frac{3}{10}$
☐ C. $P(\text{green}) = \frac{1}{2}$
☐ D. $P(\text{not red}) = \frac{6}{10}$

3) A baker makes 18 loaves of bread in 3 hours. At this constant rate, how many loaves are made per hour?

4) On a map where 2.5 cm represents 50 km, how many kilometers does 1 cm represent?

5) A barber charges \$25 per haircut and performs 8 haircuts in a day. If the barber earns a 40% commission on all haircut fees, what is the total commission for the day?

☐ A. \$40
☐ B. \$200
☐ C. \$100
☐ D. \$80

6) A checking account has a monthly fee of \$10. If you maintain a minimum balance of \$1 000, the fee is waived. Carlos has \$850 in the account. How much more must he deposit to avoid the fee?

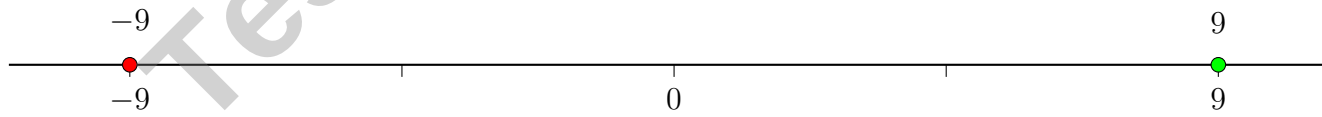
☐ A. \$100
☐ C. \$200
☐ B. \$250
☐ D. \$150

7) A pair of jeans originally costs \$50. The store raises the price to \$60. What is the percent increase?

☐ A. 10%
☐ C. 20%
☐ B. 16.7%
☐ D. 30%

8) A jacket on sale costs \$51. The original price was \$60. What percent discount was applied?

9) What is $(-9) + 9$?



☐ A. 18 (adds absolute values)
☐ C. 0 (correct; additive inverse property)
☐ B. 9 (ignores the negative sign)
☐ D. −18 (keeps negative and doubles)

Nebraska NSCAS Growth Grade 7 Practice Test Answer Keys

How to use this section with a Grade 7 student:

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Nebraska NSCAS Growth practice test.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice A is correct.** 7.EE.1-7.EE.2 Distribute the negative: $-5w-4-2w+9=(-5w-2w)+(-4+9)=-7w+5$.

2) **Choice A is correct.** 7.RP.3 P: $\frac{|84-100|}{100}\times 100\%=16\%$. Q: $\frac{|28-32|}{32}\times 100\%=12.5\%$. R: $\frac{|66-75|}{75}\times 100\%=12\%$. S: $\frac{|54-60|}{60}\times 100\%=10\%$. Attempt P has the largest error.

3) **Choice C is correct.** 7.EE.4b An open circle at 0 with a left-pointing arrow indicates $x<0$.

4) **Choice A is correct.** 7.EE.1-7.EE.2 Distribute -2 to both terms: $(x)\cdot(-2)+(5)\cdot(-2)=-2x-10$.

5) **Choice D is correct.** 7.RP.3 STEP 1: Convert 6 months to years: $t=6\div 12=0.5$ years. STEP 2: $I=1500\times 0.12\times 0.5=\$90$.

6) **Choice A is correct.** 7.EE.1-7.EE.2 Expand: $-4(2m+3)=-4(2m)+(-4)(3)=-8m-12$. Correct.

7) **Choice D is correct.** 7.RP.1-7.RP.3 Scale is $2:5$, so $1:2.5$. Actual length: $10\times 2.5=25$ feet.

8) **Choice D is correct.** 7.RP.3 If $16=0.80\times a$, then $a=\frac{16}{0.80}=20$ attempts.

9) **Choice D is correct.** 7.RP.3 Selling price = cost $\times 1.30$. So $84=\text{cost}\times 1.30$, giving cost $=84\div 1.30\approx\$64.62$.

10) **The correct answer is 13 .** 7.NS.1-7.NS.3 If the difference is $4-x=-9$, then $x=4-(-9)=4+9=13$. Check: $4-13=-9$ ✓.

11) **Choice D is correct.** 7.NS.1b New altitude $=35000+(-2000)=33000$ feet. The plane's altitude decreased by 2000 feet.

12) **Choice A is correct.** 7.EE.1 Combine: $(-3+5-1+2)x=3x$.

13) **Choice A is correct.** 7.EE.4b "A number plus 8" translates to $x+8$, and "is less than" translates to $<$.

14) **Choice C is correct.** 7.G.4-7.G.6 Original: $SA_1=2(7\cdot 5+7\cdot 4+5\cdot 4)=2(35+28+20)=2(83)=166$ in^2. New dimensions $8\times 6\times 5$: $SA_2=2(8\cdot 6+8\cdot 5+6\cdot 5)=2(48+40+30)=2(118)=236$ in^2. Increase: $236-166=70$ in^2.

15) **Choice C is correct.** 7.SP.5-7.SP.8 Each section has probability $\frac{1}{4}$. Expected frequency $=\frac{1}{4}\times 80=20$.

16) **Choice D is correct.** 7.RP.1-7.RP.3 Rate is $\frac{960}{8}=120$ pages per minute. So $p=120m$.

17) **Choice A is correct.** 7.NS.2d $1\div 9=0.111\ldots=0.\overline{1}$. Denominators of 9 produce repeating 1's.

18) **The correct answer is C,D.** 7.SP.1-7.SP.4 The total amounts are not given, so A and B cannot be determined from the percentages alone. Region Y has 50% indoor and 50% outdoor use, so C is correct. Region Y's outdoor percentage (50%) is higher than Region X's outdoor percentage (40%), so D is correct.

19) **Choice C is correct.** 7.NS.1-7.NS.3 Weight loss: $\frac{1}{6}\times 180=30$ pounds.

20) **Choice B is correct.** 7.NS.1-7.NS.3 Total distance $=\frac{2}{5}+\frac{3}{5}=\frac{5}{5}=1$ mile.

21) **Choice A is correct.** 7.NS.1-7.NS.3 $2.75\times 10^{-6}=0.00000275$. Move decimal 6 places left.

22) **Choice B is correct.** 7.EE.1-7.EE.2 Substitute: $2(5)+3(1)-2=10+3-2=11$.

23) **Choice C is correct.** 7.G.1-7.G.5 Scale $1:3$ means the enlargement is 3 times the original: $4\times 3=12$ inches.

24) **Choice C is correct.** 7.G.1-7.G.5 Supplementary angles sum to $180°$: $180-65=115°$.

25) **The correct answer is $\frac{4}{3}$.** 7.RP.1-7.RP.3 If $\frac{1}{2}$ job takes $\frac{2}{3}$ hour, then 1 full job takes $\frac{2}{3}\times 2=\frac{4}{3}$ hours.

26) **The correct answer is 60 .** 7.RP.1-7.RP.3 The unit rate is $300\div 5=60$ miles per hour.

27) **Choice A is correct.** 7.G.4-7.G.6 $V=\pi r^2h=3.14\times(0.9)^2\times 4.5=3.14\times 0.81\times 4.5=2.5434\times 4.5=11.45$ cm^3.

28) **Choice B is correct.** 7.SP.1-7.SP.4 Online polls attract self-selected respondents who choose to participate, typically those with strong opinions on the issue. This is voluntary response bias, the primary issue with this sampling method.

29) **Choice D is correct.** 7.RP.1-7.RP.3 The unit rate is the y-value when $x=1$. Because $(2,30)$ is on the line through the origin, $k=30/2=15$, so earning rate is \$15 per hour.

30) **Choice C is correct.** 7.RP.3 Using the proportion $\frac{120}{100}=\frac{d}{1}$ where d is the decimal, divide: $\frac{120}{100}=1.2$.

31) **Choice D is correct.** 7.RP.3 Wants $=35\%\times\$3{,}600=\$1{,}260$. Savings $=15\%\times\$3{,}600=\$540$. Difference $=\$1{,}260-\$540=\$720$.

32) **Choice D is correct.** 7.NS.1-7.NS.3 Convert to common denominator 6: $1\frac{2}{6}+2\frac{1}{6}=3\frac{3}{6}=3\frac{1}{2}$.

Hi, Detail Champion!

◇ In Grade 7, small details can change an entire answer: a negative sign, a decimal place, a unit, an exponent, or an inequality symbol. ◇

⋆ **Remember this:** You practiced noticing those details. That is a serious test skill, and it gets better with every careful review. This version gave you 3 opportunities to rehearse test-day habits. ⋆

Detail Checks

- **Signs:** Circle negatives before simplifying.
- **Symbols:** Read inequality signs carefully.
- **Decimals:** Line up place values.
- **Units:** Match the unit the question asks for.

Grade 7 test-day tip: Use the final minute on each section for a detail scan, not a full redo.

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

Jay Daie

Your Detail-Check Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** full-length Math practice tests and **2** online tests to help Grade 7 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 Answers & 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

Build Confidence
Practice regularly to feel prepared and test-ready.

Strengthen Math Skills
Develop key math concepts and problem solving abilities.

Detailed Answers & Explanations
Learn from clear explanations and step-by-step solutions.

Improve Test Performance
Apply your knowledge and achieve your best score!

TOPICS COVERED

- Ratios & Proportions
- The Number System
- Expressions & Equations
- Geometry
- Percents & Decimals
- Statistics & Probability
- Data Analysis
- Measurement & Conversions
- Algebraic Thinking
- And More!

2 ONLINE TESTS

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

2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!

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