

$\frac{2}{3}$

# FULL-LENGTH

$\frac{2}{4}$

# Nebraska

$7 \times 8 =$

$0,25$



Aligned to State Standards

$7 \times 8$

## NSCAS Growth

$56 \div 7$

# MATH

Grade

# 5

$(a+b)^2$

# PRACTICE TESTS

Complete State Standards Review  
with Answer Key and  
Essential Math Skills Practice



**3 Full-Length Practice Tests**  
Aligned to State Standards



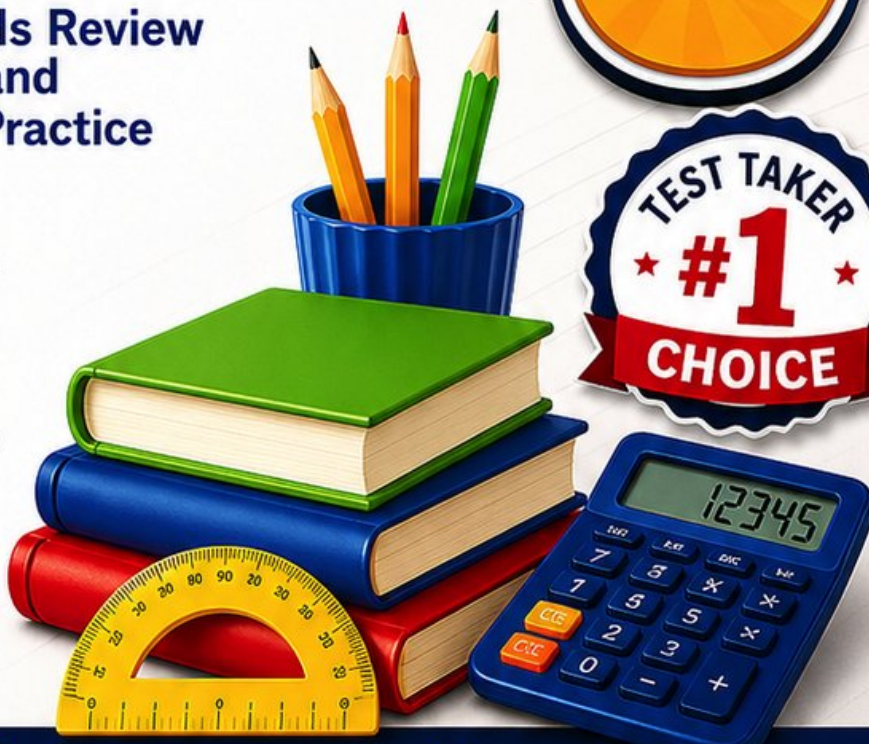
**Covers All Grade 5 Math Topics**  
Numbers & Operations, Fractions,  
Decimals, Geometry, Measurement,  
Data & Problem Solving



**Build Confidence**  
Strengthen Skills • Improve Accuracy  
• Boost Test Readiness



**Detailed Answer Key**  
Step-by-Step Explanations  
for All Questions



WRITTEN FOR  
GRADE 5 STUDENTS



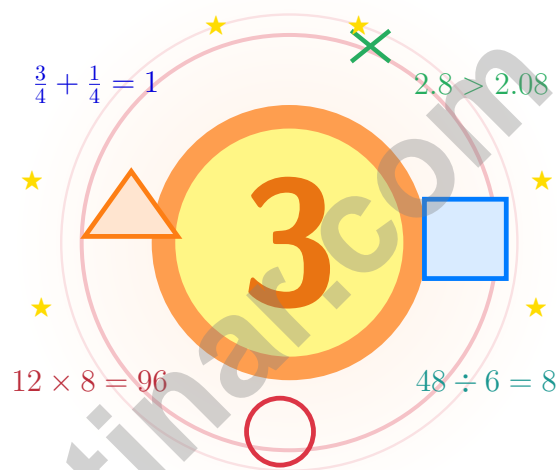
PERFECT FOR  
TEST PREP & REVIEW



CLASSROOM, HOME,  
OR SELF-STUDY USE

# 3 Nebraska NSCAS Growth Grade 5 Math Practice Tests

*Cornhusker math for thinkers who finish the row*



Three full tests, a friendly quick review, smart strategy pages, and student-tested support that help Grade 5 mathematicians from The Cornhusker State walk in ready to think.

**Jay Daie and Reza Nazari**



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# Greetings, Young Nebraska Mathematician

Cornhusker math for thinkers who finish the row

## To Nebraska Students Who Love a Puzzle

Math is a lot like a long Nebraska cornfield – the work is real, the rows are tidy, and finishing one helps you start the next.

Some questions will feel easy from the very first read. Others will ask you to pause, sketch, estimate, or try again. That is not a problem. That is practice doing exactly what it should do. Every honest attempt grows your math brain a little stronger.

### Notice

Notice the numbers, units, and any tricky words.

### Sketch

Sketch a picture, table, or quick number line.

### Confirm

Confirm your answer with an estimate or check.

**A Nebraska promise to yourself:** I will finish the row I am working on before I start a new one.

# How This Book Wants to Help

A simple game plan that turns practice into real progress

## Step 1: Plan

**Plan a quiet hour for one full test.**  
Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

## Step 2: Practice

**Take the test with steady focus.**  
Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

## Step 3: Inspect

**Inspect every answer like a careful builder.**  
Circle missed questions, sort out what went sideways, and notice which skills are calling for more attention.

## Step 4: Adjust

**Adjust what needs adjusting and ride into the next test.**  
Read the explanation, fix the work, and carry that lesson forward into the next test.

## A Nebraska Three-Week Schedule

<b>Week 1</b>	Begin with Test 1 – a low-pressure read of your math.
<b>Week 2</b>	Run Test 2 with one new habit, like always checking labels.
<b>Week 3</b>	Finish Test 3 with calm, careful, confident effort.



Scan me

## What to Expect Inside

### What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in Nebraska for the Nebraska NSCAS Growth with the steady patience of a long farming day. The goal is bigger than getting answers right. Students are practicing how to read with care, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every single day.

#### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, ruling out weak choices, and checking for reasonableness can save both time and points.

#### Constructed-Response Questions

Students show their steps, explain a method, or back up an answer with clear math. Clean reasoning matters because it shows how the answer was actually found.

#### Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- line plots, tables, numerical patterns, and coordinate points
- geometry and multi-step real-world problems

**What strong work looks like on the NSCAS Growth:** the math is correct, the steps are readable, the labels and units match the problem, and the final answer truly answers the question being asked.



# Table of Contents

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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)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

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### TIME

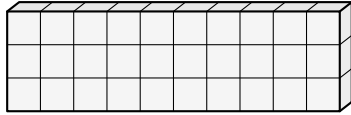
1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks



- 1) A rectangular prism with dimensions 10 by 1 by 3 contains how many unit cubes?



- A. 14 unit cubes
- B. 30 unit cubes
- C. 20 unit cubes
- D. 13 unit cubes
- 2) Divide:  $2,340 \div 36$
- A. 65
- B. 67
- C. 69
- D. 71
- 3) Simplify:  $9\frac{6}{9} - 4\frac{3}{9}$  and reduce the answer.
- A.  $5\frac{1}{3}$
- B.  $5\frac{2}{3}$
- C.  $5\frac{5}{9}$
- D.  $5\frac{4}{9}$
- 4) A box has a volume of  $240 \text{ in}^3$ , length 12 in, and width 4 in. What is its height?
- A. 3 in
- B. 5 in
- C. 6 in
- D. 7 in
- 5) Which shape is a parallelogram but not a rectangle?



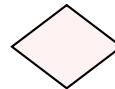
A



B



C

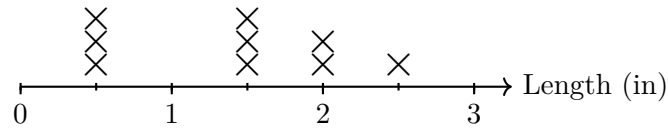


D

- A. A
- B. B
- C. C
- D. D



- 6) The line plot shows lengths of caterpillars (in inches) found in a garden:



Marks are at half-inch intervals. What is the difference between the longest and shortest caterpillar?

- A.  $1\frac{1}{2}$  inches                       C.  $2\frac{1}{2}$  inches  
 B. 3 inches                                 D. 2 inches
- 7) Rule A starts at 0 and adds 1. Rule B starts at 0 and adds 3. If 0 is the first term in each pattern, what is the 5th ordered pair  $(A, B)$ ?
- A. (5, 3)                                     C. (4, 12)  
 B. (5, 15)                                  D. (3, 5)
- 8) A composite solid has total volume 120 cubic feet. One non-overlapping prism is 72 cubic feet. What is the volume of the other prism?
- A. 72 cubic feet                           C. 24 cubic feet  
 B. 48 cubic feet                           D. 96 cubic feet
- 9) Lily says 2 quarts = 8 cups. Is she correct? (1 quart = 2 pints, 1 pint = 2 cups)
- A. Yes, she is correct                       C. No, 2 quarts = 16 cups  
 B. No, 2 quarts = 4 cups                 D. No, 2 quarts = 2 cups
- 10) Estimate:  $10 - 4\frac{11}{12}$ .
- A. 4     C. 6  
 B. 5     D. 7



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1) Which sum is not written in simplest form? (Error Analysis)

A.  $2\frac{1}{3} + 1\frac{1}{3} = 3\frac{2}{3}$

B.  $1\frac{1}{2} + 2\frac{1}{2} = 4$

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

D.  $2\frac{3}{8} + 1\frac{5}{8} = 4$

2) Three expressions are shown. Which gives the largest value?

A.  $0.5 \times 100$

B.  $0.5 \times 10$

C.  $0.05 \times 100$

D.  $50 \times 0.1$

3) A rectangular prism is 12 cm long, 3 cm wide, and 4 cm high. What is its volume?

A.  $96 \text{ cm}^3$

B.  $108 \text{ cm}^3$

C.  $144 \text{ cm}^3$

D.  $192 \text{ cm}^3$

4) Evaluate:  $(25 - 10) \div 5 + 8$

A. 10

B. 11

C. 13

D. 23

5) What is  $75 \times 10^2$ ?

A. 0.75

B. 750

C. 7500

D. 75000

6) A place-value chart shows tenths, hundredths, and thousandths. For 11.247, which digit is in the thousandths place?

Tens	Ones	Tenths	Hundredths	Thousandths
1	1	2	4	7

A. 1

B. 2

C. 4

D. 7



## Grade 5 Mathematics Reference Materials

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- 1) Add three fractions:  $\frac{1}{3} + \frac{1}{4} + \frac{1}{6}$
- A.  $\frac{9}{12}$  or  $\frac{3}{4}$                        C.  $\frac{3}{6}$   
 B.  $\frac{3}{13}$                                        D.  $\frac{1}{2}$
- 2) Two patterns of ordered pairs are given. Pattern X: (1, 3), (2, 6), (3, 9). Pattern Y: (1, 6), (2, 12), (3, 18). Identify the relationship.
- A.  $Y = X + 1$                                C.  $Y = X + 3$   
 B.  $Y = X + 2$                                D.  $Y = 2 \times X$
- 3) What is the missing denominator?  $\frac{2}{3} = \frac{8}{?}$
- A. 10     C. 16  
 B. 18     D. 12
- 4) A runner has 5 miles of trail. She marks the trail every  $\frac{1}{2}$  mile. How many half-mile sections are there?
- A. 15 sections                                   C. 20 sections  
 B. 10 sections                                   D. 25 sections
- 5) Tamara runs  $\frac{3}{4}$  of a 12-mile trail. Does she run more or less than 12 miles?
- A. More than 12 miles                       C. Exactly 12 miles  
 B. Less than 12 miles                       D. Cannot be determined
- 6) A runner training for a race completed 8.75 miles. She plans to run 12.5 miles. How many miles are left?
- A. 3.85 miles                                   C. 4.15 miles  
 B. 3.95 miles                                   D. 3.75 miles



## 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 B is correct.** (5.G.4) Even though the width is 1, it still counts as one row. Multiply  $10 \times 1 \times 3 = 30$  unit cubes.
- 2) **Choice A is correct.** (5.N.3)  $2,340 \div 36 = 65$ . Check:  $36 \times 65 = 2,340$ .
- 3) **Choice A is correct.** (5.N.3)  $9 - 4 = 5$  and  $\frac{6}{9} - \frac{3}{9} = \frac{3}{9} = \frac{1}{3}$ . Result:  $5\frac{1}{3}$ .
- 4) **Choice B is correct.** (5.D.2) The base area is  $12 \times 4 = 48$  square inches. Since  $240 \div 48 = 5$ , the height is 5 in.
- 5) **Choice D is correct.** (5.G.1) Shape D has two pairs of parallel sides, so it is a parallelogram. It does not have four right angles, so it is not a rectangle.
- 6) **Choice D is correct.** (5.A.1) Shortest at  $\frac{1}{2}$  inch, longest at  $2\frac{1}{2}$  inches. Difference:  $2\frac{1}{2} - \frac{1}{2} = 2$  inches.
- 7) **Choice C is correct.** (5.G.2) Since 0 is the first term, the first five A-values are 0, 1, 2, 3, 4 and the first five B-values are 0, 3, 6, 9, 12. The 5th ordered pair is (4, 12).
- 8) **Choice B is correct.** (5.G.1) Use the total and subtract the known part:  $120 - 72 = 48$  cubic feet for the missing prism.
- 9) **Choice A is correct.** (5.G.3) 1 quart = 4 cups (since 1 qt = 2 pt and 1 pt = 2 c, so  $2 \times 2 = 4$  cups). Therefore, 2 quarts =  $2 \times 4 = 8$  cups. Lily is correct.
- 10) **Choice B is correct.** (5.G.4)  $4\frac{11}{12} \approx 5$ . So  $10 - 4\frac{11}{12} \approx 10 - 5 = 5$ .
- 11) **Choice A is correct.** (5.N.3)  $\frac{1}{2}$  and  $\frac{2}{3}$  have different denominators. With LCD 6:  $\frac{1}{2} = \frac{3}{6} \neq \frac{4}{6} = \frac{2}{3}$ .
- 12) **Choice C is correct.** (5.N.3) 0.005 is five thousandths and 0.05 is five hundredths. They are not equal:  $0.005 < 0.05$ .
- 13) **Choice A is correct.** (5.G.1) A square has all equal sides (rhombus property) and all right angles (rectangle property), so a square IS both a rhombus and a rectangle.
- 14) **Choice C is correct.** (5.N.2)  $\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$  liter of juice.
- 15) **Choice A is correct.** (5.N.2) Since  $\frac{9}{7} > 1$ , multiplying 7 by  $\frac{9}{7}$  produces a larger result. No computation needed!
- 16) **The correct answer is <.** (5.G.1) 1.408 has 4 tenths and 0 hundredths. 1.48 has 4 tenths and 8 hundredths. So  $1.408 < 1.48$ .
- 17) **Choice D is correct.** (5.G.4) An equilateral triangle has three equal sides, so it also has at least two equal sides, making it isosceles. However, not all isosceles triangles are equilateral.
- 18) **Choice C is correct.** (5.G.1) The base is  $10 \times 5 = 50$  square feet. Since the volume is 200 cubic feet,  $200 \div 50 = 4$ , so the depth is 4 feet.
- 19) **Choice B is correct.** (5.N.2) Multiplying by 10 moves the decimal one place right:  $0.003 \rightarrow 0.03$ .
- 20) **Choice A is correct.** (5.N.3) Use total amount divided by the size of one piece. The equation is  $9 \div \frac{1}{6} = n$ .
- 21) **Choice B is correct.** (5.G.2) Moving 6 units right from the origin gives  $x = 6$ . Moving 3 units up gives  $y = 3$ . The endpoint is (6, 3).
- 22) **Choices A, D are correct.** (5.G.2) Pattern Q adds twice as much as Pattern P, so matching terms in Q are double the terms in P, and Q grows faster. B is false after one step, and C is false at the 3rd term.
- 23) **Choice A is correct.** (5.N.3)  $\frac{3}{5} \times \frac{5}{6} = \frac{15}{30}$ , which simplifies to  $\frac{1}{2}$ .
- 24) **Choice D is correct.** (5.N.3) Round 26 up to 30 (since  $6 \geq 5$ ) and 37 up to 40 (since  $7 \geq 5$ ). Then  $30 \times 40 = 1,200$ .
- 25) **Choice A is correct.** (5.N.3)  $7 \div \frac{1}{4} = 7 \times 4 = 28$ .
- 26) **The correct answer is 9.1.** (5.N.3) Hundredths digit is 7 (with 5 in thousandths). Since  $7 \geq 5$ , round tenths up:  $9.0 \rightarrow 9.1$ .
- 27) **Choice A is correct.** (5.A.1)  $V = 20 \times 15 \times 10 = 300 \times 10 = 3000 \text{ cm}^3$ .
- 28) **The correct answer is  $\frac{1}{12}$ .** (5.N.3)  $\frac{1}{2} \times \frac{1}{6} = \frac{1}{12}$ .
- 29) **Choice D is correct.** (5.N.3) Add:  $2.75 + 1.38 = 4.13$  L (hundredths:  $5 + 8 = 13$ , regroup; tenths:  $7 + 3 + 1 = 11$ , regroup; ones:  $2 + 1 + 1 = 4$ ).
- 30) **The correct answer is 30 apples.** (5.G.2) The  $x$ -coordinate is 5, so it represents 5 bags. The  $y$ -coordinate is 30, so it represents 30 apples.



### Case Closed: Success Ahead

---

### Greetings, Math Detective!

◇ Outstanding investigation! You've cracked the code on 3 complete practice tests, examining every clue and solving every mathematical mystery like a brilliant detective! Each problem was a puzzle, and you methodically gathered evidence, analyzed patterns, and reached accurate conclusions. That analytical thinking you've developed will serve you well on test day and beyond! ◇

★ **Here's what master detectives know:** not every case solves itself immediately. Sometimes you need to examine the evidence from different angles, try various approaches, and remain persistent until you crack the code. You've practiced exactly that through these 3 tests! Your investigative skills have sharpened considerably, and you're ready to solve any mathematical mystery that comes your way! ★

#### Detective's Case File: Your Skills

- **Clue Collection:** You gather all important information from problems before solving!
- **Pattern Recognition:** You identify mathematical patterns like a trained investigator!
- **Evidence Analysis:** You evaluate which strategies work best for each problem type!
- **Case Resolution:** You stay focused until you've found the correct solution!

**Detective wisdom:** the best investigators take notes about their methods so they can solve similar cases faster in the future. Your brain has been doing exactly that throughout these 3 tests, storing successful strategies in your mental filing cabinet. On test day, you'll be able to retrieve those proven methods instantly!

If you want to share a proud moment or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com). I'd love to hear from you!

**Jay Daie**

Your Math Detective Coach

# Build Skills. Boost Confidence. Excel on the Grade 5 Math Test.

Help your child succeed with confidence! This book includes **3 full-length Grade 5 Math practice tests** aligned to state standards. With a focus on essential skills, problem solving, and test readiness, it's the perfect resource for classroom, home, or on-the-go practice.



## WHAT'S INSIDE:



### 3 Full-Length Grade 5 Math Practice Tests

Realistic test format to build familiarity and confidence.



### Covers All Essential Math Topics

Fractions, decimals, geometry, measurement, data, number operations, and more.



### Build Strong Math Skills

Strengthen understanding and problem-solving through varied question types.



### Detailed Answer Key

Step-by-step explanations to help your child learn from mistakes and improve.



### Track Progress & Improve

Use score trackers to identify strengths and focus on areas that need more practice.



## The Smarter Way to Prepare!

Consistent practice builds stronger skills, sharper thinking, and test-day success.

- ✓ Reinforce classroom learning
- ✓ Improve accuracy and speed
- ✓ Reduce test anxiety
- ✓ Achieve your best score!



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