

# 8

# New Hampshire

# NH SAS

# GRADE 4

# PRACTICE TESTS



1

$$2 \times 3 = 6$$

3

5

$$2 \times 3 = 6$$

2

4



**Standards-Aligned Review with  
Mixed Practice and Answer Key**

**COMPREHENSIVE  
TEST PREP**

Includes Solutions

# 8 New Hampshire NH SAS Grade 4 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Eight complete 30-question Grade 4 practice rounds for NH SAS, built around granite peaks, forest paths, and crisp math explanations, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, New Hampshire Math Explorer!

Eight steady rounds on the Granite State math route

This book gives you eight full Grade 4 practice tests for NH SAS. Each round uses granite peaks, forest paths, and crisp math explanations to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## New Hampshire Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

## How to Use This Book

A ten-session routine for New Hampshire NH SAS review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Granite State math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Eight tests, 240 questions, and a full NH SAS review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 6–8	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.

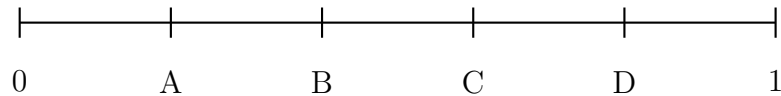


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For more practice  
& answers

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1) Where does 0.2 belong on this number line?



- A. At position A                       C. At position C  
 B. At position B                       D. At position D

2)   
3 times

The diagram shows two horizontal bars. The top bar is labeled '10' and has a length of 10 units. The bottom bar is labeled '3 times' and has a length of 30 units, which is 3 times the length of the top bar. A question mark '?' is placed at the end of the bottom bar.

A garden has 10 rose bushes. A park has 3 times as many rose bushes. How many rose bushes does the park have?

- A. 13                                       C. 30  
 B. 27                                       D. 35

3) A bake sale sells 6 trays of cupcakes. Each tray has 24 cupcakes. They also have 18 leftover cupcakes from yesterday. How many cupcakes do they have in total?

- A. 144                                       C. 156  
 B. 140                                       D. 162

4) A pattern is: 1, 4, 9, 16, 25, ... What is the next term?

- A. 30                                       C. 36  
 B. 35                                       D. 40



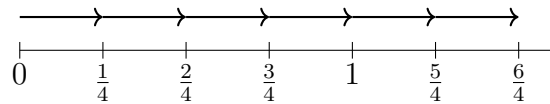
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5) A garden plot needs  $\frac{6}{4}$  bags of soil. The gardener already has  $\frac{2}{4}$  bags. How many more bags are needed?

- A.  $\frac{4}{4}$   
 B.  $\frac{8}{4}$

- C.  $\frac{2}{4}$   
 D.  $\frac{1}{4}$

6) Use the number line to find  $6 \times \frac{1}{4}$ .



- A.  $\frac{1}{4}$   
 B.  $\frac{6}{4}$  or  $1\frac{1}{2}$

- C.  $\frac{6}{24}$   
 D. 2

7) What is  $1\frac{2}{6} + 2\frac{5}{6}$ ?

- A.  $3\frac{5}{6}$   
 B.  $4\frac{1}{6}$

- C.  $3\frac{6}{6}$   
 D. 4

8) Elena shares a chocolate bar into 2 equal pieces. She eats both pieces. Which shows this as unit fractions?

- A.  $\frac{1}{2}$   
 B.  $\frac{2}{2}$

- C.  $\frac{1}{2} + \frac{1}{2}$   
 D.  $\frac{1}{1}$

9) A pencil is 19 centimeters long. How many millimeters is this?

- A. 1.9  
 B. 19

- C. 190  
 D. 1,900



10) Is 56 a multiple of 8?

- A. Sometimes  C. Cannot tell  
 B. No  D. Yes

11) Convert  $\frac{1}{10}$  to a fraction with denominator 100.

- A.  $\frac{1}{100}$   C.  $\frac{10}{100}$   
 B.  $\frac{11}{100}$   D.  $\frac{100}{100}$

12) Which statement correctly describes how to classify a triangle?

- A. By looking only at the number of sides  C. By counting the number of vertices  
 B. By looking at angle measures or side lengths  D. By measuring the perimeter

13) A fraction bar is divided into 6 equal parts with 4 parts shaded. Express this as a multiplication of a unit fraction.

- A.  $4 \times \frac{1}{6}$   C.  $2 \times \frac{1}{6}$   
 B.  $6 \times \frac{1}{4}$   D.  $6 \times \frac{1}{6}$

14) Which decimal is the smallest?

- A. 0.35  C. 0.50  
 B. 0.53  D. 0.55

15) Mia has the digit 8 in the hundreds place of a four-digit number. If she moves this digit to the thousands place, the value of this digit increases by how much?

- A. 800  C. 8,000  
 B. 200  D. 7,200



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- 1) A line plot shows cat weights in eighths of a pound:  $\frac{4}{8}$ ,  $\frac{6}{8}$ ,  $\frac{4}{8}$ ,  $\frac{4}{8}$ ,  $\frac{5}{8}$ . Which weight has the most X marks?
- A.  $\frac{4}{8}$  lb                       C.  $\frac{6}{8}$  lb  
 B.  $\frac{5}{8}$  lb                       D.  $\frac{7}{8}$  lb
- 2) A pattern of numbers follows the rule “add the previous two numbers.” Starting with 3 and 4, what is the 5th term?
- A. 12                               C. 16  
 B. 14                               D. 18
- 3) A hand sweeps clockwise from 12 to 9 on a clock. How many degrees did it sweep?
- A.  $90^\circ$                        C.  $270^\circ$   
 B.  $180^\circ$                        D.  $360^\circ$
- 4) Which number sentence is true?
- A.  $\frac{2}{10} = \frac{20}{100}$                        C.  $\frac{2}{10} = \frac{12}{100}$   
 B.  $\frac{2}{10} = \frac{2}{100}$                        D.  $\frac{2}{10} = \frac{100}{2}$
- 5) A recipe needs  $\frac{2}{3}$  cup of flour. How can we write this as a sum of unit fractions?
- A.  $\frac{1}{3} + \frac{1}{3}$                        C.  $\frac{2}{3} + \frac{1}{3}$   
 B.  $\frac{1}{2} + \frac{1}{2}$                        D.  $\frac{1}{6} + \frac{1}{6}$



6) Which decimal is equal to  $\frac{35}{100}$ ?

A. 0.035

C. 3.5

B. 0.35

D. 35.0

7) A rectangle that is **not** a square has how many lines of symmetry?

A. 1

C. 3

B. 2

D. 4

8)  $\frac{7}{6}$  equals  $1\frac{1}{6}$ . Which decomposition shows this?

A.  $\frac{6}{6} + \frac{1}{6}$

C.  $\frac{3}{6} + \frac{3}{6}$

B.  $\frac{5}{6} + \frac{1}{6}$

D.  $\frac{1}{6} + \frac{7}{6}$

9) What is  $\frac{7}{10} - \frac{3}{10}$ ?

A.  $\frac{4}{20}$

C.  $\frac{10}{10}$

B.  $\frac{4}{10}$

D.  $\frac{3}{10}$

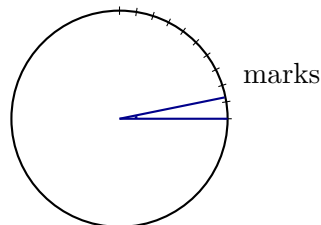
10) A baker makes muffins in batches. She makes 6 batches, each with 24 muffins. If she sells muffins in boxes of 9, how many boxes can she fill completely?

A. 15

C. 18

B. 17

D. 16 boxes



11)

This angle reaches the first  $9^\circ$  mark. How many one-degree angles make this angle?

A. 9 one-degree angles

C. 18 one-degree angles

B.  $4.5^\circ$

D.  $1^\circ$



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1) What decimal represents  $\frac{8}{10}$ ?

A. 0.08

C. 8.0

B. 0.88

D. 0.8

2) Chen rode his bike 18 kilometers on Saturday and 25 kilometers on Sunday. What was the total distance?

A. 7 km

C. 43 km

B. 25 km

D. 450 km

3) Diego has 6 stickers. Each sticker is  $\frac{1}{2}$  inch long. What is the total length of all his stickers?

A.  $\frac{6}{2}$  inches or 3 inches

C.  $\frac{6}{12}$  inch

B.  $\frac{1}{12}$  inch

D.  $\frac{7}{2}$  inches

4) A book bag weighs 5 kilograms. How many grams is this?

A. 500

C. 50,000

B. 5,000

D. 500,000

5) How many lines of symmetry does a non-square rectangle have?



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6) What is  $\frac{5}{6} - \frac{2}{6}$ ?

A.  $\frac{3}{6}$

B.  $\frac{7}{6}$

C.  $\frac{2}{6}$

D.  $\frac{3}{12}$

7) A farm sells 2,160 eggs in cartons of 6 eggs each. How many cartons can they fill?

8) A construction company pours 32 sections of concrete. Each section uses 24 bags of cement. How many bags of cement are needed?

A. 696 bags

B. 920 bags

C. 850 bags

D. 768 bags

9) Which part of an angle is the point where the two rays meet?

A. The side

B. The vertex

C. The arc

D. The exterior

10) A recipe calls for 0.5 cups of sugar. Does this equal 0.50 cups?

A. Yes, they are equal

B. No, 0.5 is greater

C. No, 0.50 is greater

D. They cannot be compared

11) Which turn is the largest?

A.  $\frac{1}{2}$  turn

B.  $\frac{1}{3}$  turn

C.  $\frac{2}{5}$  turn

D.  $\frac{1}{4}$  turn



## Practice Test Answer Keys

**How to use this section with a Grade 4 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice A is correct.** (4.NF.C.5) The number line counts by tenths: 0.2 is the very first mark to the right of 0, so it's at position A.
- Choice C is correct.** (4.OA.A.2) The bar model shows the park's bar is 3 equal pieces, each the size of the garden's 10 rose bushes. Multiply:  $3 \times 10 = 30$  rose bushes.
- Choice D is correct.** (4.OA.A.3) Two steps! Step 1: cupcakes from the trays:  $6 \times 24 = 144$ . Step 2: add the leftovers:  $144 + 18 = 162$  cupcakes in total.
- Choice C is correct.** (4.OA.B.4) These are perfect squares:  $1^2 = 1$ ,  $2^2 = 4$ ,  $3^2 = 9$ ,  $4^2 = 16$ ,  $5^2 = 25$ . The next is  $6^2 = 36$ .
- Choice A is correct.** (4.NF.B.3) The gardener needs soil but already has some. Find how much more is needed by subtracting what he has from what's needed:  $\frac{6}{4} - \frac{2}{4} = \frac{4}{4}$  more bags of soil are needed.
- Choice B is correct.** (4.NF.B.4) On the number line, we make 6 jumps of  $\frac{1}{4}$  each, landing at  $\frac{6}{4} = 1\frac{1}{2}$ . So  $6 \times \frac{1}{4} = 1\frac{1}{2}$ . The answer is  $1\frac{1}{2}$ .
- Choice B is correct.** (4.NF.B.3) Add the wholes:  $1 + 2 = 3$ . Add the fractions:  $\frac{2}{6} + \frac{5}{6} = \frac{7}{6} = 1\frac{1}{6}$ . Combine:  $3 + 1\frac{1}{6} = 4\frac{1}{6}$ .
- Choice C is correct.** (4.NF.B.3) Elena ate both pieces of the chocolate bar that was divided into 2 equal pieces. So she ate  $\frac{2}{2}$ , which as unit fractions is  $\frac{1}{2} + \frac{1}{2}$ .
- Choice C is correct.** (4.MD.A.1) Since 1 centimeter = 10 millimeters, multiply:  $19 \times 10 = 190$  mm. The answer is 190 mm.
- Choice D is correct.** (4.OA.B.4) To check if 56 is a multiple of 8, divide:  $56 \div 8 = 7$  exactly (no remainder). Since  $8 \times 7 = 56$ , yes—56 is a multiple of 8.
- Choice C is correct.** (4.NF.C.5) To convert  $\frac{1}{10}$  to hundredths, multiply both the numerator and denominator by 10:  $\frac{1}{10} = \frac{1 \times 10}{10 \times 10} = \frac{10}{100}$ .
- Choice B is correct.** (4.G.A.2) Triangles are classified in two ways: by their angle measures (acute, right, obtuse) or by their side lengths (equilateral, isosceles, scalene). Looking at angles or sides helps identify the type of triangle. The answer is B.
- Choice A is correct.** (4.NF.B.4) Count the shaded parts: 4 parts. Count the equal parts: 6 total. So this shows 4 copies of  $\frac{1}{6}$ , which we write as  $4 \times \frac{1}{6}$ .
- Choice A is correct.** (4.NF.C.5) When comparing decimals, look at the tenths place first—it has the most weight. 0.35 has 3 tenths; the others (0.53, 0.50, 0.55) all have 5 tenths. Since  $3 < 5$ , the number with fewer tenths is automatically the smallest, no matter what's in the hundredths place. So **0.35** is the smallest. ✓
- Choice D is correct.** (4.NBT.A.1) The digit 8 in the hundreds place is worth 800. Moved to the thousands place, it's worth 8,000. The increase is  $8,000 - 800 = 7,200$ . ✓
- The correct answer is B, C.** (4.MD.C.5) An obtuse angle opens wider than a right angle (90 degrees) but does not reach a straight line (180 degrees). So it is both larger than right and smaller than straight.
- Choice D is correct.** (4.NBT.A.3) We're rounding to the nearest thousand. Look at the hundreds digit:  $9 \geq 5$ , so round UP! But 9 becomes 10—a rollover! So 9,987 → **10,000**. ✓
- Choice D is correct.** (4.NBT.B.6) Divide:  $45 \div 5 = 9$ , and  $5 \div 5 = 1$ . Each of the 5 libraries gets **91** books.
- Choice A is correct.** (4.NF.B.4)  $3 \times \frac{2}{5}$  means 3 groups of  $\frac{2}{5}$ . The numerator is  $3 \times 2 = 6$ , not  $3 + 2$ . So the correct answer is  $\frac{6}{5}$ .
- Choice B is correct.** (4.G.A.1) Perpendicular lines cross each other at exactly  $90^\circ$ , while parallel lines never cross at all—they stay side by side forever.
- Choice C is correct.** (4.MD.C.5) Five-sixths of the circle is  $\frac{5}{6} \times 360^\circ = 300^\circ$ .
- Choice C is correct.** (4.MD.C.5) The angle extends to  $70^\circ$  as marked, so it contains **70** one-degree angles.
- The correct answer is Liam.** (4.NF.A.1) Use denominator 60:  $\frac{3}{4} = \frac{45}{60}$ ,  $\frac{4}{5} = \frac{48}{60}$ ,  $\frac{5}{6} = \frac{50}{60}$ . Since  $45 < 48 < 50$ , Liam ran the shortest distance.



Star Player Pep Talk

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## Hi, Star Player!

◇ 8 practice tests. Every one of them was a chance to grow. You took every chance. That's why you're a math star today! ◇

★ **Star players know:** confidence comes from practice. You can't fake it. You build it. You built yours over 8 tests. It's real now! ★

### Star Player Stats

- **Practice:** OFF THE CHARTS!
- **Skills:** BROAD! You can do many problem types.
- **Toughness:** HIGH! You don't quit on hard problems.
- **Game Plan:** READY! You know your strategies.

**Star tip:** on test day, take it one play at a time. One problem. Then the next. You will earn your stars!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Coach

# 8 PRACTICE TESTS. PREPARE. PRACTICE. SUCCEED!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, master essential concepts, and boost confidence for success in the classroom and beyond.

Featuring 8 full-length practice tests, a variety of question types, and detailed answer explanations, this book provides the practice and support students need to improve accuracy, strengthen problem-solving abilities, and achieve their best.

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