

8

New Hampshire

NH SAS

GRADE 6

MATH

PRACTICE TESTS

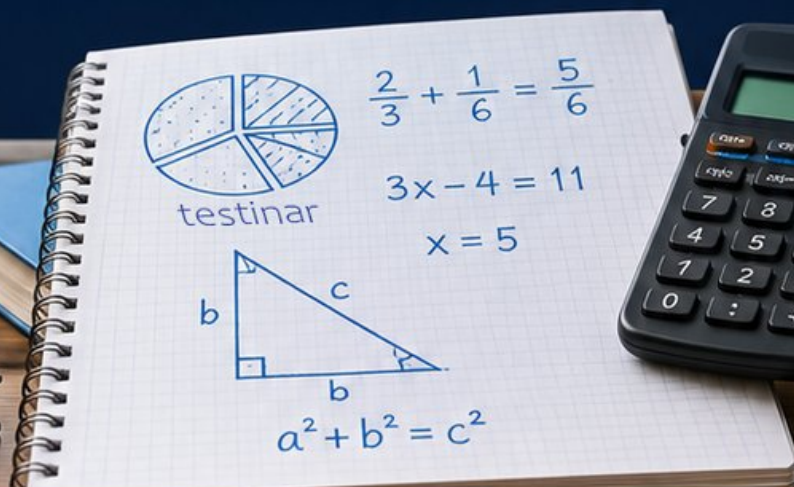
8
PRINTED
TESTS

+

2
ONLINE
TESTS

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

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



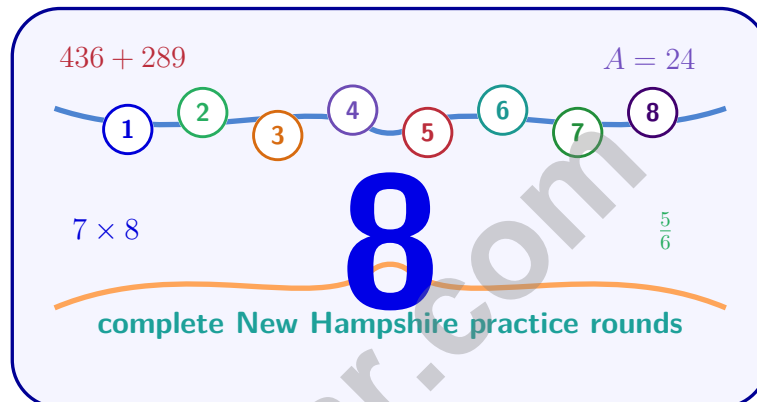
STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 New Hampshire NH SAS Grade 6 Math Practice Tests

Standards-Aligned Granite-State Precision for New Hampshire Statewide Assessment System



Eight complete 40-question Grade 6 practice rounds for NH SAS, built for granite-state precision 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, New Hampshire Math Explorer!

Eight focused rounds using granite-state precision

This book gives you eight full Grade 6 practice tests for NH SAS. Each round uses mountain towns, forest trails, and crisp problem notes as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your New Hampshire Practice Promise

Build a solid solution: read closely, write the relationship, and test the answer.

Read

Plan

Check

How to Use This Book

A eight-session routine for granite-state precision

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

New Hampshire review rhythm: Complete a round, polish the rough spots, and start the next test with a clearer plan.



What Is Inside?

Eight NH SAS tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–8	Final stamina rounds 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. Granite-state precision means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



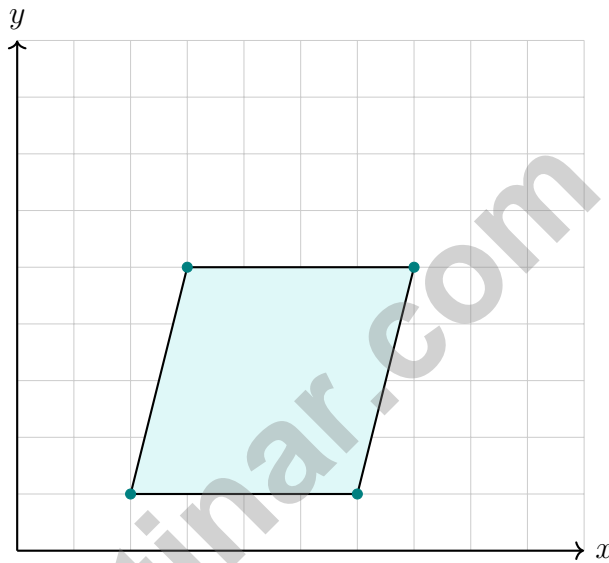
Scan me!
For more practice
& answers

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1) A video streaming service charges \$8 per month. If m is months and T is total cost, the equation is $T = 8m$. What does the number 8 in the equation represent?

- A. The total cost
- B. The monthly charge
- C. The number of months
- D. The type of service



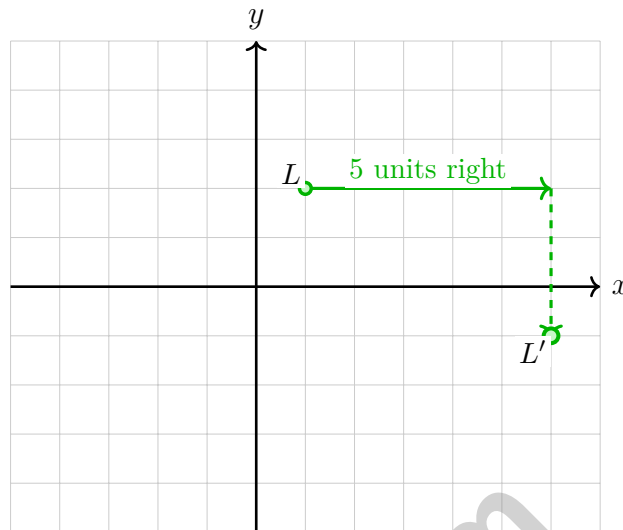
2)

What is the name of this quadrilateral?

- A. Parallelogram
- B. Rectangle
- C. Quadrilateral
- D. Trapezoid

3) The point (4, 2) is reflected across the y -axis. What is the new x -coordinate?





4)

Point L at $(1, 2)$ is translated 5 units right and 3 units down. What is the distance between L and L' along the x -direction?

- A. 5 units
- B. 3 units
- C. 2 units
- D. 8 units

5) If $\frac{2}{3} = \frac{8}{x}$, what is x ?

- A. 10
- B. 16
- C. 14
- D. 12

Fixed 40%	Variable 35%	Savings 25%
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6)

Income = \$600

Based on the budget bar, how much goes to Variable expenses?

- A. \$150
- B. \$180
- C. \$210
- D. \$240



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& answers

7) Evaluate: $\frac{48}{-8}$

A. -6

C. 40

B. 6

D. -40



8) Total: $x + 6$

The tape diagram shows a total length. Which phrase does this represent?

A. Six times a number x

C. A number x minus 6

B. A number x plus 6

D. Six divided by x

9) Which expression is equivalent to $9(x + 2)$?

A. $9x + 2$

C. $x + 18$

B. $9x + 11$

D. $9x + 18$

10) A baker needs more than 2 cups of sugar but no more than 4 cups. Which pair of inequalities matches this, using s for cups?

Condition	Meaning
More than 2 cups	$s > 2$
No more than 4 cups	$s \leq 4$

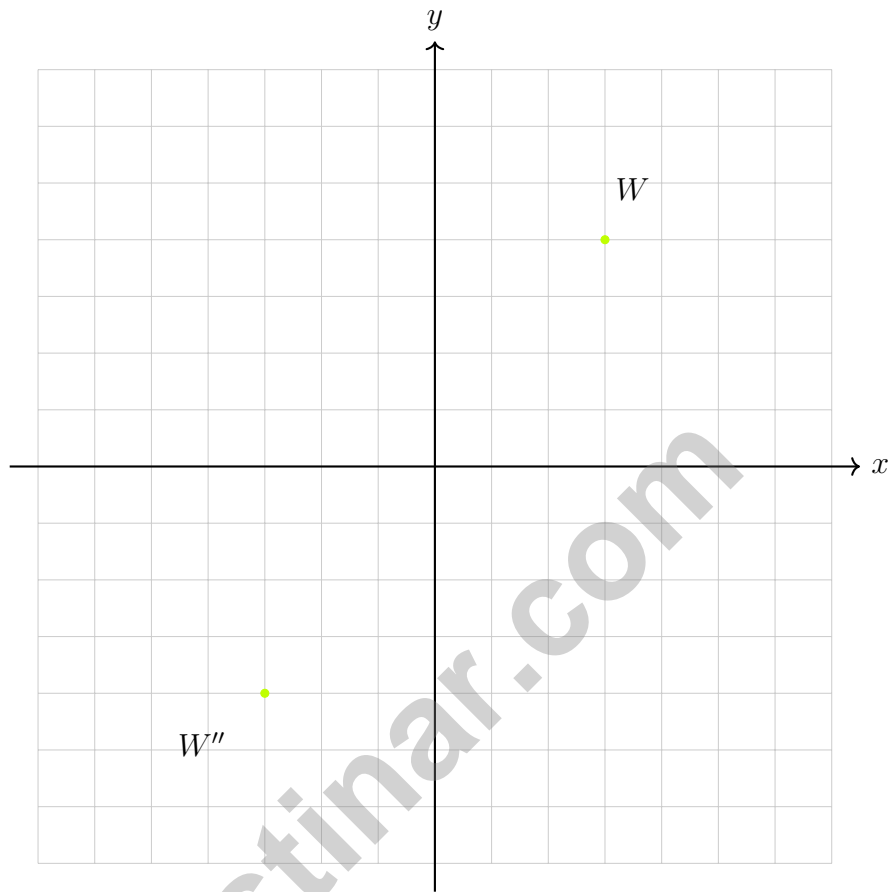
A. $s > 2$ and $s \leq 4$

C. $s < 2$ and $s > 4$

B. $s \geq 2$ and $s < 4$

D. $s \leq 2$ and $s \geq 4$





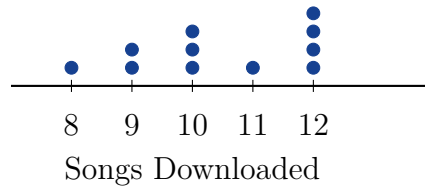
1)

If point W is at $(3, 4)$ and point W'' is at $(-3, -4)$, what transformation(s) would move W to W'' ?

- A. Reflection across the x -axis only
- B. Reflection across the y -axis only
- C. Reflection across both axes
- D. Reflection across the origin



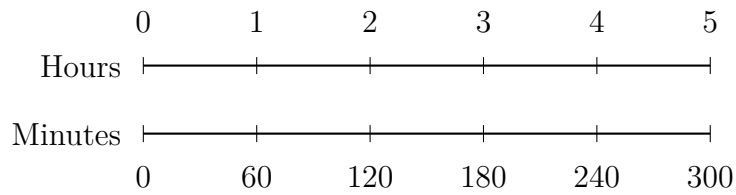
- 2) A dot plot shows the number of songs each student downloaded: 8, 9, 9, 10, 10, 10, 11, 12, 12, 12, 12. What is the range of this data?



- A. 2
- B. 3
- C. 4
- D. 5
- 3) Four vertices are at (3, 1), (8, 1), (8, 3), and (3, 3). What type of quadrilateral is this?
- A. Rectangle
- B. Trapezoid
- C. Triangle
- D. Pentagon
- 4) A cube has surface area 216 cm^2 . What is the length of its edge?
- A. 6 cm
- B. 8 cm
- C. 9 cm
- D. 12 cm



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& answers



1)

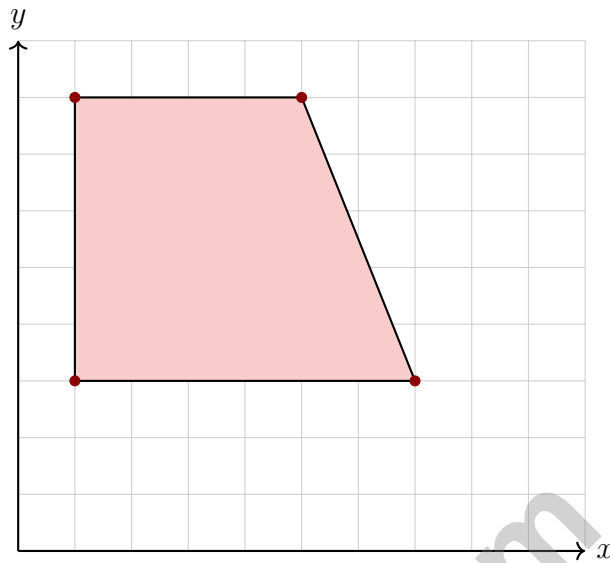
Based on the double number line, what is the rate in minutes per hour?

- A. 30 minutes per hour C. 90 minutes per hour
 B. 60 minutes per hour D. 150 minutes per hour

2) An athlete runs at a speed of 6.5 miles per hour for 2 hours. How many miles does the athlete cover?



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& answers



3)

What is the length of the top side?

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

4) A bank account is overdrawn (negative balance) by \$250. The bank charges a \$10 penalty 5 times during the year. What is the total amount charged in penalties?

- A. -\$50 C. -\$1250
 B. \$50 D. \$1250

5) Which expression means “a number x minus 9”?

- A. $9 - x$ C. $x + 9$
 B. $x - 9$ D. $\frac{x}{9}$



New Hampshire NH SAS Practice Test Answer Keys

How to use this New Hampshire NH SAS 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 granite-state precision
3. rework the problem before reading the full explanation, using this reminder:
Build a solid solution: read closely, write the relationship, and test the answer.

A calm New Hampshire correction routine turns every missed item into useful practice. Complete a round, polish the rough spots, and start the next test with a clearer plan.



Scan me!
For more practice
& answers

New Hampshire Practice Test Answers and Explanations

Review the eight printed NH SAS tests with solid, precise, and ready for the next trail habits.

Practice Test 1 Answers and Explanations

- Choice B is correct.** **(6.EE.C.9)** In the equation $T = 8m$, the number 8 (multiplied by m) represents \$8 per month, the monthly charge.
- Choice D is correct.** **(6.G.A.3)** The quadrilateral has one pair of parallel sides (top and bottom are parallel). This makes it a trapezoid.
- The correct answer is -4.** **(6.NS.C.8)** Reflection across the y -axis changes the sign of the x -coordinate.
- Choice A is correct.** **(6.NS.C.8)** The translation is 5 units right, so the distance moved in the x -direction is 5 units.
- Choice D is correct.** **(6.RP.A.3)** Cross-multiply: $2 \times x = 3 \times 8$, so $2x = 24$, thus $x = 12$.
- Choice C is correct.** **(6.EE.C.9)** Variable expenses: 35% of $\$600 = 0.35 \times 600 = \210 .
- Choice A is correct.** **(6.NS.B.3)** Positive divided by negative is negative: $\frac{48}{-8} = -6$.
- Choice B is correct.** **(6.EE.A.2a)** The tape diagram shows x and 6 as separate parts that combine to make a total. This represents the sum: $x + 6$.
- Choice D is correct.** **(6.EE.A.3)** Distribute: $9(x + 2) = 9 \cdot x + 9 \cdot 2 = 9x + 18$.
- Choice A is correct.** **(6.EE.B.8)** "More than 2" gives $s > 2$. "No more than 4" gives $s \leq 4$. Together: $s > 2$ and $s \leq 4$.
- Choice B is correct.** **(6.G.A.1)** $A = \frac{1}{2} \times 7 \times 6 = 21 \text{ m}^2$.
- Choice B is correct.** **(6.G.A.1)** Width: $6 - 1 = 5$ units. Height: $7 - 2 = 5$ units. Area = $5 \times 5 = 25$ square units.
- The correct answer is 3.** **(6.EE.B.8)** The boundary value is the number in the inequality, 3.
- Choice B is correct.** **(6.SP.A.2)** With 4 values, the median is the average of the 2nd and 3rd values: $(20 + 25) / 2 = 22.5$.
- Choice B is correct.** **(6.SP.B.5c)** Ordered data: 5, 7, 7, 9, 11. The median (middle of 5) is the 3rd value: 7.
- Choice C is correct.** **(6.NS.B.3)** Total marbles = $3 + 5 + 2 = 10$. Blue marbles = 5. Probability = $\frac{5}{10} = \frac{1}{2}$.
- Choice B is correct.** **(6.SP.B.4)** Numbers in the 10s: 12, 18, 15, 12, 20, 15, 14, 19. Those with stem 1: 12, 18, 15, 12, 15, 14 (6 values).
- Choice A is correct.** **(6.NS.A.1)** 25% of 180 is $0.25 \times 180 = 45$ customers.
- Choice B is correct.** **(6.RP.A.3)** The points follow a clear upward trend from left to right: as age increases, height increases. The points are closely aligned, indicating a strong relationship.
- Choice B is correct.** **(6.RP.A.3b)** Unit rate: $\$16 \div 4 = \4 per loaf. For 7 loaves: $7 \times \$4 = \28 .
- The correct answer is** $0.45 = \frac{45}{100} = \frac{9}{20}$; $75\% = \frac{75}{100} = \frac{3}{4}$. **(6.RP.A.3c)** A is correct: $0.45 = \frac{9}{20}$ (both equal 45 out of 100). C is correct: $75\% = \frac{3}{4}$ (both equal 75 out of 100). B is wrong: $\frac{1}{2} = 50\%$, not 40%. D is wrong: $\frac{1}{5} = 20\%$, not 25%. E is wrong: $0.33 \approx 33\%$ but $\frac{1}{3} \approx 33.\bar{3}\%$ (not exact).
- Choice B is correct.** **(6.RP.A.3a)** Using the point (2, 1): unit rate = $1 \div 2 = 0.5$ points per minute. Or from (10, 5): unit rate = $5 \div 10 = 0.5$ points per minute.
- Choice D is correct.** **(6.NS.C.7d)** Rent to Food: $\$1200 : \$800 = 12 : 8 = 3 : 2$ (dividing both by 400).
- Choice C is correct.** **(6.NS.A.1)** $3 \div \frac{1}{3} = 3 \times 3 = 9$.
- Choice B is correct.** **(6.NS.B.2)** Check each one: $2,500 \div 25 = 100$, $3,000 \div 24 = 125 \checkmark$, $3,600 \div 30 = 120$, and $2,750 \div 25 = 110$. The match is choice B because $24 \times 125 = 3,000$.
- Choice B is correct.** **(6.NS.C.8)** The bottom side goes from (0, 0) to (4, 0): $|4 - 0| = 4$ units.



Math Detective at Work

Hi, Math Detective!

◇ You did such a great job! You finished 8 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

Detective tip: on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

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

Jay Daie

Your Math Detective Helper

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

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

8
PRINTED
TESTS

+

2
ONLINE
TESTS

PERFECT FOR

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



**PRACTICE TODAY.
SUCCEED TOMORROW.**

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.



Understand Key Concepts

Reinforce important math ideas aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS