

5 FULL-LENGTH New Hampshire NH SAS

GRADE 5 MATH

★ PRACTICE TESTS ★



5 FULL-LENGTH
PRACTICE TESTS



COMPLETE
STANDARDS
REVIEW



SKILL PRACTICE,
WORD PROBLEMS,
AND MORE!

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



$$12 \times 3 = 36$$



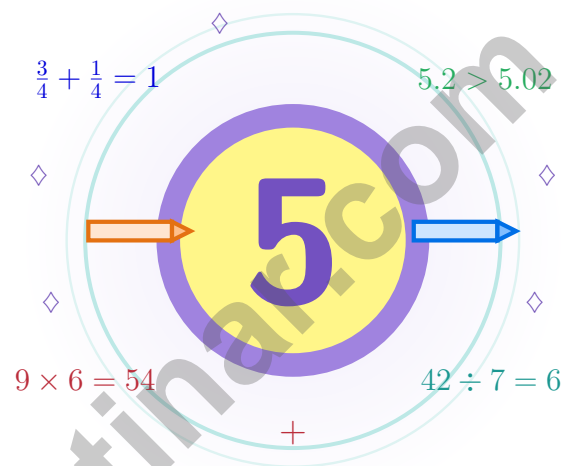
$$\frac{7}{10} = 0.7$$



BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.

5 New Hampshire NH SAS Grade 5 Math Practice Tests

Five chances to grow your math mind one careful step at a time



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The Granite State into a steady quest of real growth.

Jay Daie and Reza Nazari



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Hello, New Hampshire – Five-Checkpoint Adventure

Five chances to grow your math mind one careful step at a time

New Hampshire Grade 5: This Quest Is for You

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math is like Granite State stone – it holds up under pressure when each layer was placed with care.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

See

See the whole question
before you start the
math.

Plan

Plan one careful step
before the next.

Reflect

Reflect on what worked
and what wobbled.

A strong quest habit for New Hampshire: slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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Five Checkpoints, One Routine

A simple routine that turns five tests into real growth

Step 1: Open

Open the warm-up review and use it.

Wake up important ideas before you begin so your brain is ready to use them.

Step 2: Test

Take the test with steady focus.

Find a quiet space, work carefully, and let accuracy matter more than speed.

Step 3: Reflect

Notice what was sharp and what was shaky.

Circle missed questions and look for patterns. Which skill or habit needs another try?

Step 4: Sharpen

Practice the shaky skills before the next round.

Read the explanation, repair the work, and carry that lesson into the next test.

A Five-Week New Hampshire Quest Map

Week	Mission Focus
Week 1	Take Test 1 and place your first granite stones.
Week 2	Take Test 2 and notice one habit that grew steadier.
Week 3	Take Test 3 and lift fractions, decimals, and conversions.
Week 4	Take Test 4 and slow down on multi-step problems.
Week 5	Take Test 5 with steady, calm, confident work.



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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 $A = \frac{1}{2} \times b \times h$

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LENGTH

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



1) Error analysis: A student computed 52×10 and wrote the answer as 520. Which statement is correct?

- A. The student added a digit instead of shifting place value.
- B. The student multiplied by 5 instead of 10.
- C. There is no error; the answer is correct.
- D. The student forgot to add a zero at the end.

2) Find: $\frac{3}{8} \times 100$.

Record your answer in the space provided.

3) Find: 3.6×5 .

Record your answer in the space provided.

4) Compare the two expressions. Which statement is true?

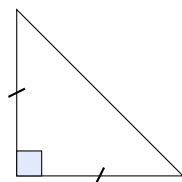
$$(12 + 8) \div 4$$

$$12 + 8 \div 4$$

- A. Left > Right
- B. Left < Right
- C. Left = Right
- D. Cannot compare

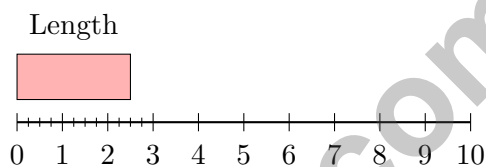


5) Look at the triangle below. How should it be classified?



- A. Isosceles obtuse
- B. Scalene acute
- C. Equilateral right
- D. Isosceles right

6) Which measurement is shown on the ruler?



- A. $2\frac{1}{2}$ inches
- B. 2 inches
- C. 3 inches
- D. $2\frac{1}{4}$ inches

7) A jug holds $\frac{5}{6}$ gallon of juice. After pouring out $\frac{1}{3}$ gallon, how much remains?

Record your answer in the space provided.

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



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1) Complete the sequence. What comes next?

Expression	3×10	3×100	3×1000	3×10000
Value	30	300	3000	?

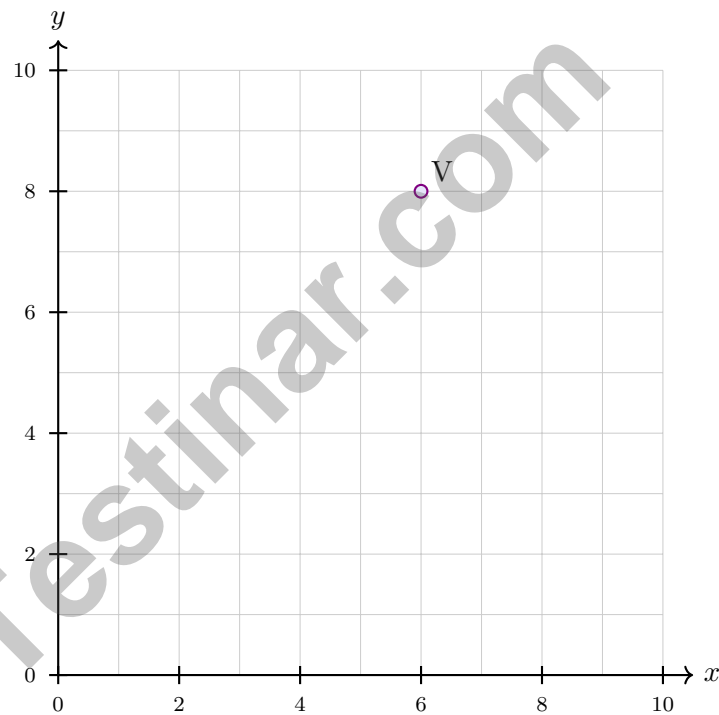
A. 300000

C. 3000

B. 30000

D. 3

2) At what coordinates is point V located?



A. (8, 6)

C. (6, 6)

B. (6, 8)

D. (8, 8)



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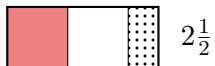
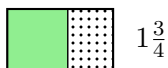
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1)

Add: $1\frac{3}{4} + 2\frac{1}{2}$

A. $3\frac{1}{4}$

B. $4\frac{1}{4}$

C. $4\frac{3}{4}$

D. $3\frac{1}{2}$

2) A rectangular prism has dimensions 7 cm, 6 cm, and 4 cm. What is the volume?

A. 140 cm^3

B. 160 cm^3

C. 168 cm^3

D. 180 cm^3

3) Evaluate: $8 + 3 \times 4$

A. 20

B. 44

C. 15

D. 11

4) A rectangular prism has volume 324 ft^3 , length 9 ft, and width 9 ft. What is the height?

A. 2 ft

B. 3 ft

C. 4 ft

D. 5 ft

5) Compare the decimals: 0.45 and 0.54.

$0.45 \square 0.54$

A. $<$

B. $>$

C. $=$

D. Cannot compare



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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

- Choice C is correct.** (5.NBT.A.2) There is no error. Multiplying by 10 shifts the digits one place left, so 52 becomes 520.
- The correct answer is $37\frac{1}{2}$.** (5.NF.B.5a) One eighth of 100 is $12\frac{1}{2}$. Three eighths is $3 \times 12\frac{1}{2} = 37\frac{1}{2}$.
- The correct answer is 18.** (5.NBT.B.7) $36 \times 5 = 180$. Place the decimal one digit from the right: $18.0 = 18$.
- Choice B is correct.** (5.OA.A.1) The grouping changes the value. The left expression is $(12 + 8) \div 4 = 20 \div 4 = 5$, while the right expression is $12 + (8 \div 4) = 12 + 2 = 14$. Since $5 < 14$, the left side is less.
- Choice D is correct.** (5.G.B.4) The small square shows a right angle, and the tick marks show two sides are equal, making it isosceles right.
- Choice A is correct.** (5.MD.A.1) The shaded bar extends from 0 to 2.5, which is $2\frac{1}{2}$ inches.
- The correct answer is $\frac{1}{2}$.** (5.NF.A.2) $\frac{1}{3} = \frac{2}{6}$. Remaining: $\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$.
- Choice C is correct.** (5.NF.A.1) $4\frac{5}{5}$ equals 5, so it is not in simplest form. The sum should be written as 5.
- Choice B is correct.** (5.NBT.A.1) In the decimal system, each place is 10 times the place to its right. So ones (1) = $10 \times$ tenths (0.1).
- Choice D is correct.** (5.NF.A.2) From the table, 24 appears in both rows. The least common denominator is 24.
- Choice D is correct.** (5.NF.B.5a) Only $1\frac{1}{10} > 1$. When the factor is greater than 1, the product is greater than 6.
- Choice B is correct.** (5.OA.A.2) Each box starts with 24 pencils, so 6 boxes have 6×24 pencils. Since 4 pencils in each box are broken, subtract 6×4 broken pencils.
- Choice D is correct.** (5.NBT.A.3b) 0.32 is 0.02 away from 0.3. The decimal 0.47 is 0.17 away, and 0.68 is farther away.
- Choice B is correct.** (5.NF.A.1) Borrow 1: $16\frac{2}{6} = 15\frac{8}{6}$. Then $15\frac{8}{6} - 9\frac{4}{6} = 6\frac{4}{6} = 6\frac{2}{3}$.
- Choice C is correct.** (5.MD.C.4) $6 \times 4 = 24$ unit cubes total (6 cubes per layer, 4 layers).
- Choice B is correct.** (5.NF.B.7c) Divide a whole number by a unit fraction: $6 \div \frac{1}{4} = 6 \times 4 = 24$ pieces.
- Choice A is correct.** (5.G.A.1) A point in this region has a positive x-coordinate and a positive y-coordinate. Only (4, 6) has both coordinates greater than 0.
- Choice D is correct.** (5.NBT.A.2) $0.6 \times 100 = 60$ (move decimal 2 places right).
- Choices A, B are correct.** (5.OA.A.2) A is true because 3 copies of (6 + 4) can be written as 2 copies plus 1 more copy. B is true because 10 groups of 7 are greater than 10 groups of 7 - 1. C adds an extra 9, and D leaves out one group of 5.
- Choice B is correct.** (5.OA.A.2) For pencils, every group of 3 costs \$1, so 12 pencils cost $12 \div 3$ dollars. The erasers cost 5×2 dollars, so add those two costs.
- Choice A is correct.** (5.NBT.B.6) $1,456 \div 32 = 45$ R16. Check: $(32 \times 45) + 16 = 1,440 + 16 = 1,456$.
- Choice B is correct.** (5.NF.B.4) $2 \times \frac{3}{4} = \frac{6}{4} = 1\frac{1}{2}$ pans.
- Choice C is correct.** (5.MD.C.5) $495 = 9 \times 5 \times 11$; $495 = 99 \times 5$. The missing dimension is 5 m.
- Choice C is correct.** (5.OA.A.1) Parentheses tell you where to begin: $6 + 4 = 10$. Then $10 \times 3 = 30$, and $30 - 5 = 25$.
- Choice B is correct.** (5.NF.A.1) LCM(9,3) = 9. $\frac{1}{3} = \frac{3}{9}$. $\frac{2}{9} + \frac{3}{9} = \frac{5}{9}$ of the dishes.
- Choice B is correct.** (5.MD.C.5a) Prism B has volume $7 \times 4 \times 4 = 112$ cubic units, which is the greatest.
- Choice D is correct.** (5.NF.B.4b) The product $\frac{1}{4} \times \frac{1}{3}$ correctly gives $\frac{1}{12}$ (4 columns times 3 rows = 12 squares). Choice D is incorrect because the denominator IS 12.
- Choice D is correct.** (5.NBT.A.2) Dividing by 1,000 moves the decimal point three places to the left. $9,200 \div 1,000 = 9.2$.
- Choice D is correct.** (5.NBT.A.2) Dividing by 10 makes each part one tenth as large. Move the decimal 1 place left: $0.8 \div 10 = 0.08$, so each part is 0.08 meter long.
- Choice D is correct.** (5.MD.A.1) Breakfast is 1 cup 2 fluid ounces, or 10 fluid ounces. Dinner is 1 cup 6 fluid ounces, or 14 fluid ounces, so the total is $10 + 14 = 24$ fluid ounces.



Hey there, Mathematical Inventor!

★ Brilliant innovation session! You've engineered solutions to five complete practice tests, designing creative approaches and building mathematical machines in your mind like a master inventor! Every problem you solved required you to design a solution strategy, test different approaches, and refine your methods. That's exactly what inventors do and you've become exceptionally skilled at it! ★

◇ **Here's what successful inventors understand:** the first prototype rarely works perfectly. Great inventors test, adjust, redesign, and improve until they create something remarkable. You've practiced that exact process through these five tests! Each mistake taught you to refine your approach, and now you have a toolbox full of reliable mathematical inventions ready to use! ◇

Inventor's Workshop: Your Creations

- **Problem-Solving Blueprints:** You've designed reliable methods for every problem type!
- **Strategic Prototypes:** You test multiple approaches to find the most efficient solution!
- **Quality Testing:** You verify your answers to ensure accuracy before submitting!
- **Continuous Improvement:** You learn from feedback and consistently enhance your skills!

Remember this inventor's principle: preparation is the foundation of innovation! Five complete practice tests represent substantial preparation. You've tested your mathematical machines repeatedly, and they work beautifully. Test day is your opportunity to demonstrate your inventions to the world. Trust your engineering!

Want to patent a particularly clever solution method? Share your mathematical inventions at reza@testinar.com. I celebrate innovative thinking!

Reza Nazari & Jay Daie

Your Supportive Math Coaches

5 FULL-LENGTH TESTS. STRONG SKILLS. BRIGHTER RESULTS.



Build confidence and master math with **5 full-length** practice tests designed to reflect the real test experience. This book provides the practice, review, and support students need to succeed in Grade 5 and beyond!

WHAT'S INSIDE:



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Realistic tests that build familiarity, boost focus, and improve test readiness.



COMPLETE STANDARDS REVIEW

Covers all essential Grade 5 math topics with clear explanations and examples.



SKILL PRACTICE

Strengthen key math skills through a wide variety of practice questions.



WORD PROBLEMS

Build critical thinking and problem-solving skills with real-world questions.



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Step-by-step explanations for every question to help students learn and improve.



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Build Confidence
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practice



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and problem-
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