

8

FULL-LENGTH

New Hampshire

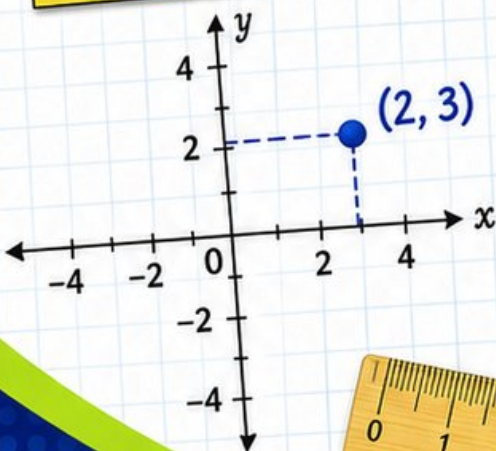
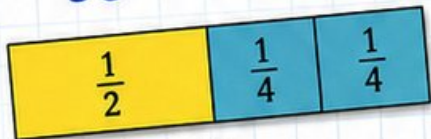
NH SAS

GRADE 5

MATH PRACTICE TESTS

Mixed Practice Questions with Answer Key
for Students, Parents, and Teachers

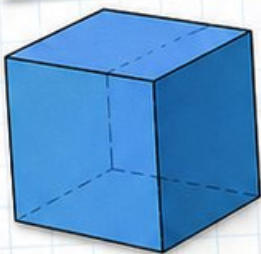
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

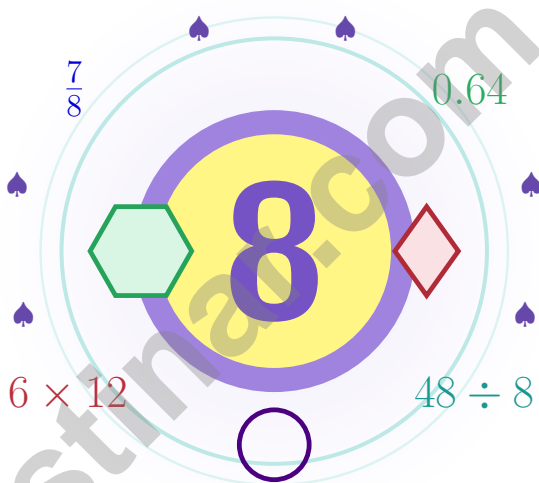
$$7 \times (12 - 5) = 49$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



8 New Hampshire NH SAS Grade 5 Math Practice Tests

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



Eight full tests, a focused quick review, and helpful support that turns Grade 5 practice in The Granite State into steady, confident growth from page one to the final check.

Jay Daie and Reza Nazari



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New Hampshire, Your Eight-Test Trail Begins

Eight full tests woven into one calm, steady practice path

Dear New Hampshire Math Trail Crew

This practice book is your steady companion for eight tests, not a place to be perfect. Math is like Granite State stone – it holds up under pressure when each layer was placed with care.

Use these eight tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up across seven rounds.

Notice

Look closely at what the problem says, shows, and asks.

Try

Pick a plan and step through it carefully.

Grow

Use every correction as a clue for what to master next.

A strong habit for New Hampshire mathematicians: read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

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Your Eight-Step Trail Plan

A simple routine that turns practice into progress

Step 1: Step 1

Warm up with a quick review.

Spend a few minutes waking up your memory before the test begins.

Step 2: Step 2

Take one full practice test.

Work in a calm spot and focus on careful thinking before speed.

Step 3: Step 3

Check your work honestly.

Circle missed questions and notice which topics keep showing up.

Step 4: Step 4

Fix, reflect, and try again.

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

A Good 8-Week New Hampshire Rhythm

Week 1	Take Test 1 and place your first granite stones.
Week 2	Take Test 2 and slow down on word problems.
Week 3	Take Test 3 and lift fraction and decimal work.
Week 4	Take Test 4 and pay close attention to labels and units.
Week 5	Take Test 5 and compare your habits with your first test.
Week 6	Take Test 6 and practice staying calm during tricky questions.
Week 7	Take Test 7 with steady, calm, confident work.
Week 8	Take Test 8 and finish the journey with calm, careful, confident work.



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)

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CAPACITY

Customary

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

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

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WEIGHT AND MASS

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1 pound (lb) = 16 ounces (oz)

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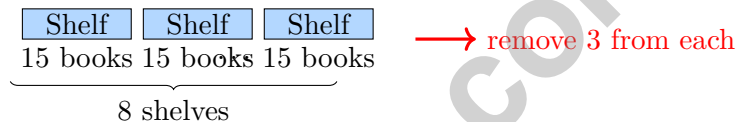
1) Which value does NOT equal 0.7?

- A. 0.70 C. 0.07
 B. 0.700 D. $\frac{7}{10}$

2) A garden plot is $6\frac{3}{4}$ feet long and needs a fence. If $2\frac{7}{10}$ feet is already fenced, estimate how much more fencing is needed.

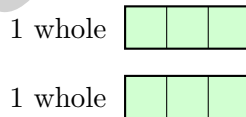
- A. About 3 feet C. About 5 feet
 B. About 4 feet D. About 6 feet

3) A library has 8 shelves, each with 15 books. The librarian removes 3 books from each shelf. Which expression gives the new total?



- A. $8 \times 15 - 3$ C. $(8 - 3) \times 15$
 B. $8 + 15 - 3$ D. $8 \times (15 - 3)$

4) The model shows 2 wholes, with each whole cut into pieces of size $\frac{1}{3}$. How many pieces of size $\frac{1}{3}$ are there in all?



2 wholes, each cut into pieces of size $\frac{1}{3}$

- A. 5 C. 3
 B. 6 D. 2



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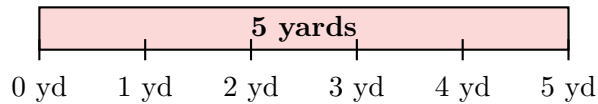


- 1) A runner completes $\frac{1}{8}$ of a lap on her first run. If she runs this distance 5 times, what fraction of the lap has she completed?

- A. $\frac{5}{8}$ of a lap
 B. $\frac{1}{40}$ of a lap
 C. $\frac{5}{1}$ laps
 D. $\frac{1}{8}$ of a lap

- 2) A ribbon is 5 yards long. How many feet long is the ribbon?

Use: 1 yard = 3 feet



- A. 8 feet
 B. 12 feet
 C. 15 feet
 D. 60 feet
- 3) A recipe calls for $\frac{2}{3}$ cup of butter. Mia makes $\frac{3}{4}$ of the recipe. How much butter does she need? Give the answer in simplest form.

- A. $\frac{6}{7}$ cup
 B. $\frac{1}{2}$ cup
 C. $\frac{5}{7}$ cup
 D. $\frac{9}{12}$ cup

- 4) What is the volume of a rectangular prism with length 8 cm, width 5 cm, and height 4 cm?

- A. 160 cm^3
 B. 120 cm^3
 C. 200 cm^3
 D. 180 cm^3

- 5) A recipe needs $\frac{2}{3}$ cup flour and $\frac{1}{4}$ cup cocoa. How much dry ingredients in all?

Record your answer in the space provided.



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1) A rectangular box has base area 60 in^2 and volume 300 in^3 . What is the height?

A. 4 in

C. 6 in

B. 5 in

D. 7 in

2) Order from least to greatest: 19×100 , 190×10 , 1900×1

$$19 \times 100 = ?$$

$$190 \times 10 = ?$$

$$1900 \times 1 = ?$$

A. All three are equal

C. $19 \times 100 < 190 \times 10 < 1900 \times 1$

B. $1900 \times 1 < 190 \times 10 < 19 \times 100$

D. $1900 \times 1 < 19 \times 100 < 190 \times 10$

3) A prism has base area 24 m^2 and height 5 m. What is the volume?

Record your answer in the space provided.

4) Convert 0.5 kilograms to grams.

A. 5 g

C. 500 g

B. 50 g

D. 5,000 g



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- 1) The table shows four students' evaluations of the expression $10 + (3 \times 4) - 2$. Which student is correct?

Student	Answer
Alex	50
Bella	20
Carla	22
Dan	12

- A. Alex
 B. Bella
 C. Carla
 D. Dan
- 2) The model shows $\frac{1}{3}$ of a whole split into 6 equal parts. What fraction of the whole is each small part?

$\frac{1}{3}$ split into 6



1 whole split into 3 equal parts

- A. $\frac{1}{3}$
 B. $\frac{1}{6}$
 C. $\frac{1}{18}$
 D. $\frac{1}{9}$
- 3) A tape diagram shows 1 whole divided into fourths. Which equation asks how many fourths fit in the whole?

- A. $\frac{1}{4} \div 1 = n$
 B. $1 \times \frac{1}{4} = n$
 C. $1 \div \frac{1}{4} = n$
 D. $1 + \frac{1}{4} = n$



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.3b)** 0.07 equals 7 hundredths, not 7 tenths. The other choices all equal 0.7.
- Choice B is correct.** **(5.NBT.A.3b)** $6\frac{3}{4} \approx 7$ and $2\frac{7}{10} \approx 3$. So $6\frac{3}{4} - 2\frac{7}{10} \approx 7 - 3 = 4$ feet.
- Choice D is correct.** **(5.OA.A.2)** Because 3 books are removed from each shelf, each shelf now has $15 - 3 = 12$ books. With 8 shelves, the new total is $8 \times 12 = 96$.
- Choice B is correct.** **(5.NF.B.7c)** Each whole contains 3 pieces of size $\frac{1}{3}$. With 2 wholes, there are $2 \times 3 = 6$ pieces.
- Choice C is correct.** **(5.NF.B.5a)** $4 \times \frac{3}{2} = 6$. Since $\frac{3}{2} > 1$, the product is larger than the starting value.
- Choice B is correct.** **(5.NF.B.5a)** When dividing by 10, each digit moves to a place with one-tenth the value, so 640 becomes 64.
- Choice B is correct.** **(5.MD.C.5)** Choose the operation from the story, then keep the unit with the answer. Divide: $156 \div 12 = 13$ boxes. This confirms the answer.
- Choice C is correct.** **(5.MD.C.5a)** The enlarged prism has dimensions 6 units, 8 units, and 10 units. Its volume is $6 \times 8 \times 10 = 480$ cubic units.
- The correct answer is 52.** **(5.NBT.B.6)** $16 \times 50 = 800$, leaving 32. $32 \div 16 = 2$. So quotient is $50 + 2 = 52$.
- Choice A is correct.** **(5.NBT.B.6)** The known length and height make groups of $12 \times 7 = 84$ cubic inches. Since $336 \div 84 = 4$, the width is 4 in.
- Choice B is correct.** **(5.NBT.B.5)** Multiply: $31 \times 24 = 31 \times (20 + 4) = (31 \times 20) + (31 \times 4) = 620 + 124 = 744$ balls.
- Choice D is correct.** **(5.G.B.3)** 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.
- Choice D is correct.** **(5.MD.C.5)** Use the rectangular-prism volume formula: $10 \times 3 \times 5 = 150$. So the volume is 150 cubic meters.
- Choice C is correct.** **(5.OA.A.1)** The diagram separates the multiplication and division nicely: $8 \times 5 = 40$ and $12 \div 3 = 4$. Then $40 - 4 + 7 = 43$.
- Choice B is correct.** **(5.NF.A.1)** $\text{LCM}(3,4) = 12$. $\frac{2}{3} = \frac{8}{12}$ and $\frac{3}{4} = \frac{9}{12}$. $\frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}$.
- The correct answer is 24.** **(5.MD.C.3b)** Think of the prism as layers of cubes. Each layer has $4 \times 3 = 12$ cubes, and 2 layers make $12 \times 2 = 24$ unit cubes.
- Choice C is correct.** **(5.MD.C.3b)** $0.25 \times 4 = 1.0$ kg. Multiply: $25 \times 4 = 100$, then place decimal two places from right.
- Choice D is correct.** **(5.NBT.A.2)** Each step multiplies by another factor of 10, so the decimal moves one place right each time: 0.08, 0.8, 8, 80.
- Choices A, B are correct.** **(5.MD.B.2)** Add the four lengths to get 4 inches in all. The value 1 inch appears twice, more than any other value; C and D do not match the line plot.
- Choice D is correct.** **(5.OA.B.3)** Subtract 20; 8th term: $200 - 7 \times 20 = 60$.
- The correct answer is $\frac{1}{6}$.** **(5.OA.B.3)** Multiply across: $\frac{3 \times 4}{8 \times 9} = \frac{12}{72}$. Divide both parts by 12 to simplify to $\frac{1}{6}$.
- Choice A is correct.** **(5.NF.B.5b)** $8 \times 10^3 = 8 \times 1000 = 8000$ items.
- Choice A is correct.** **(5.NBT.A.2)** 55 out of 100 squares shaded represents $\frac{55}{100} = 0.55$.
- Choice C is correct.** **(5.NBT.A.2)** Making one-tenth (dividing by 10): $2.4 \div 10 = 0.24$ cups of flour.
- Choice A is correct.** **(5.NF.B.5a)** $\frac{4}{5} < 1$, so multiplying 35 by it gives a smaller result.
- Choice B is correct.** **(5.OA.A.2)** Carol is comparing copies of the same amount, $(250 + 75)$. Two copies are more than one copy, but less than three copies.
- Choice D is correct.** **(5.NBT.A.4)** The tenths digit is 7. Since $7 \geq 5$, round ones up: $156 \rightarrow 157$. So 156.78 miles rounds to 157 miles.
- Choice B is correct.** **(5.NBT.A.2)** The nonzero parts make $2 \times 2 = 4$. The two factors have four zeros total, so the product is 40,000.
- Choice A is correct.** **(5.NBT.A.2)** $5\frac{1}{2} = 5\frac{2}{4}$, and $3\frac{3}{4}$ is already in fourths. Then regroup: $4\frac{6}{4} - 3\frac{3}{4} = 1\frac{3}{4}$.
- Choice A is correct.** **(5.NF.B.4b)** Model 1: $\frac{3}{5} \times \frac{1}{2} = \frac{3}{10}$. Model 2: $\frac{2}{5} \times \frac{2}{3} = \frac{4}{15}$. Since $\frac{3}{10} = \frac{9}{30}$ and $\frac{4}{15} = \frac{8}{30}$, Model 1 is greater.



Workshop Notes for an Inventor

Dear Math Inventor,

◇ 8 practice tests. 8 chances to invent new ways of thinking. You tried strategies, broke them, fixed them, and built them stronger. That's what inventors do. That's what you do. ◇

★ **What inventors know:** the first idea isn't always the best one. Sometimes you have to try, fail, learn, and try again. You've practiced that exact loop on every test. That practice is why your problem-solving brain is so flexible now. ★

Inventor's Workshop Inventory

- **Sketch Pad:** FULL of ideas! You can imagine multiple ways to solve.
- **Toolbox:** STOCKED! You have many strategies to draw on.
- **Workbench:** ORGANIZED! Your work is clear and step-by-step.
- **Invention Mindset:** STRONG! You're not afraid to try something new.

Inventor's tip: on test day, if your first idea doesn't work, switch tools. Try a different strategy. Inventors don't get stuck on one tool—they pick the right one for the job. Same on a math test.

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

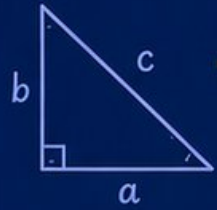
Jay Daie

Your Math Inventor (Build Big Things)

$45 \div 5 = ?$

PRACTICE TODAY.

$\frac{3}{5} + \frac{1}{10} = ?$



ACHIEVE TOMORROW!



$3^2 + 4^2 = 25$

This book includes **8** full-length **Grade 5** math practice tests to help students master essential skills, build confidence, and achieve success. Each test is carefully designed to reflect real math standards and cover a variety of question types with detailed answer explanations.

$7x - 4 = 17$

$1\frac{1}{2} + 2\frac{1}{3} = ?$

8 FULL-LENGTH MATH PRACTICE TESTS



REALISTIC PRACTICE

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Detailed answer explanations help students understand and learn.



BUILD CONFIDENCE & SKILLS

Strengthens problem-solving abilities and reinforces key math concepts.



IMPROVE & TRACK PROGRESS

Identify strengths and focus on areas that need improvement.



ACHIEVE SUCCESS

Boosts test readiness and helps students achieve their best results.

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- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ Graphing & Data Analysis

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Succeed with confidence!