

7

New Hampshire

NH SAS

Grade 3 MATH

PRACTICE TESTS

Standards-Aligned Practice with
Review, Answer Keys, and Explanations



7 Full-Length
Practice Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.

PREPARE
PRACTICE
SUCCEED



$4 \times 6 = 24$

$2 + 3 = 5$

7 New Hampshire NH SAS Grade 3 Math Practice Tests

Standards-Aligned Practice with Review, Answer Keys, and Explanations



Seven complete 30-question practice trails for Grade 3 math:
operations, fractions, measurement, data, area, shapes, answer keys,
and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome to the Seven Math Trails

Seven full tests, seven fresh chances, and one braver Grade 3 thinker



Read the trail. Mark the clues. Solve with care.

To the Grade 3 Math Trail Leader

This book gives you seven complete practice trails for the New Hampshire NH SAS. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

New Hampshire has granite peaks, forest paths, maple farms, clear streams, and thoughtful classroom work, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and climb one step at a time with careful work.

Scout

Find what the problem is asking before you calculate.

Solve

Pick an equation, model, array, graph, or number line.

Prove

Check the answer and explain the thinking clearly.

Seven-trail promise: I will work with patience, use my scratch space wisely, and let every correction make my next test stronger.

How to Use This Book

A seven-trail routine for steady Grade 3 growth

Use one practice trail at a time. The goal is not to rush through more pages. The goal is to finish, check, repair, and bring a stronger habit to the next test. For New Hampshire students, each trail moves through granite peaks, forest paths, maple farms, clear streams, and thoughtful classroom work: steady, alert, and ready for the next clue.

1. **Preview the tools.** Skim the reference page before each test.
2. **Take one test.** Work steadily and mark problems that need another look.
3. **Check the key.** Use the compact answer boxes first.
4. **Study explanations.** Read missed items and lucky guesses.
5. **Redo three problems.** Rewrite the work cleanly without copying.
6. **Name one habit.** Choose a focus such as labels, facts, fractions, or checking.
7. **Start the next trail.** Bring that habit into the next full test.

Best review habit: A missed problem is a trail marker. It shows where to slow down, look again, and choose a better step.



What Is Inside?

Seven complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–7	Solve seven different 30-question tests.	Build stamina and see Grade 3 skills mixed together.
Reference Materials	Review measurement and time facts before each test.	Keep common tools close without turning pages backward.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read why each answer works.	Turn missed items into a clear next step.
Standards Reference	See how New Hampshire Grade 3 standards connect to practice.	Understand the skills behind the questions.

Each test has 26 multiple-choice questions, 1 select-all question, and 3 open-ended questions. This gives students practice with quick decisions, careful reading, and short written math answers for the New Hampshire NH SAS path.

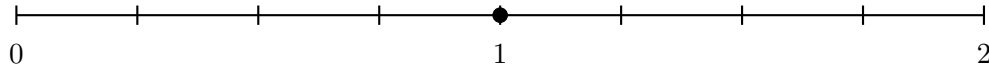


Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	26
★ Practice Test 3	_____	38
★ Practice Test 4	_____	51
★ Practice Test 5	_____	64
★ Practice Test 6	_____	76
★ Practice Test 7	_____	88
Practice Test Answer Keys	_____	99
Practice Test Answers and Explanations	_____	104

- 1) On a number line from 0 to 2 divided into 8 equal parts, the mark at the fourth tick represents which distance from 0?



- A. $\frac{1}{8}$
 C. $\frac{3}{8}$
 B. $\frac{2}{8}$
 D. 1
- 2) A picture graph shows stickers in an envelope. Each square represents 2 stickers. Count the symbols shown in the picture graph.

Envelope:

= 2 stickers

- A. 4 stickers
 C. 10 stickers
 B. 8 stickers
 D. 12 stickers
- 3) Which picture shows 18 items divided equally into 6 groups?

- A. Six groups of two



- B. Three groups of six



- C. Eighteen groups of one



- D. Six groups of three



4) At what time does the hour hand and minute hand point straight up on a clock?

A. 3 : 00

C. 9 : 00

B. 6 : 00

D. 12 : 00

5) A teacher buys 5 packs of colored paper with 10 sheets each for a project. She divides them equally among 5 students. How many sheets does each student get?

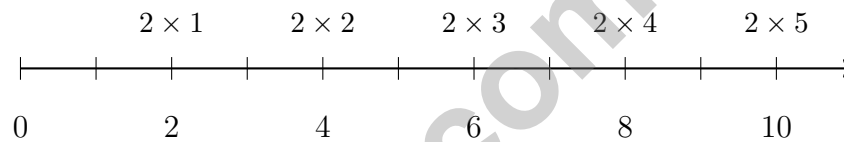
A. 5

C. 15

B. 25

D. 10

6) Look at the skip-count pattern. What is the rule?



What is 2×5 ?

A. 8

C. 12

B. 14

D. 10

7) A room is shaped like a rectangle. It is 6 meters long and 5 meters wide. What is the area of the room?

A. 30 sq m

C. 11 sq m

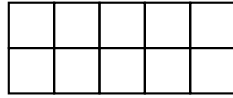
B. 22 sq m

D. 36 sq m



Scan me!
For more practice
& answers

8) This shape shows a 2×5 rectangle:



What is the total area?

- A. 14 sq units C. 20 sq units
 B. 7 sq units D. 10 sq units

9) Noah reads $\frac{4}{8}$ of a book. What is equivalent?

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

10) Look at even numbers: 2, 4, 6, 8, 10, 12, 14.

What is the rule for this pattern?

- A. Add 1 each time C. Add 3 each time
 B. Skip count by 4 D. Add 2 each time

11) $\frac{1}{3} = \frac{2}{?}$. What is the missing denominator?

- A. 4 C. 8
 B. 6 D. 9

12) A composite shape is made of a 7 ft by 2 ft rectangle and a 3 ft by 3 ft rectangle joined together. What is the total area?



- 1) A grid shows a rectangle with 3 columns and 4 rows of unit squares.



What is the area?

- A. 7 sq units C. 12 sq units
 B. 9 sq units D. 15 sq units
- 2) A picture graph shows apples in bags. Look at the key and count the symbols.

Key: ● = 5 apples

Bag 1: ● ● ●

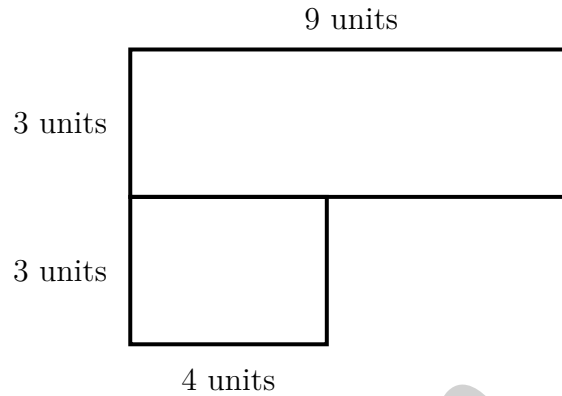
Bag 2: ● ● ● ●

- A. Bag 1 has 15 apples, Bag 2 has 20 apples. C. Bag 1 has 15 apples, Bag 2 has 10 apples.
 B. Bag 1 has 3 apples, Bag 2 has 4 apples. D. Bag 1 has 20 apples, Bag 2 has 15 apples.
- 3) If a rectangle needs exactly 15 unit squares to cover it, which dimensions work?

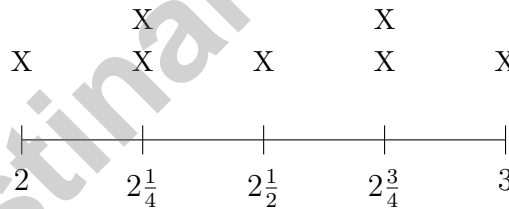
- A. 3 by 5 C. 2 by 7
 B. 4 by 4 D. 3 by 4



- 4) An L-shaped parking lot is shown. Part 1 is 9 units by 3 units. Part 2 is 4 units by 3 units. What is the total area?



- A. 39 sq units C. 12 sq units
 B. 27 sq units D. 108 sq units
- 5) A line plot shows stick lengths in feet: $2, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{3}{4}, 3$.



Which stick length has the same number of measurements as the $2\frac{1}{4}$ -foot length?

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



Scan me!
For more practice
& answers

1) A rectangle has a length of 10 cm and a width of 2 cm. Which answer shows its area?

- A. 12 sq cm C. 20 sq cm
 B. 24 sq cm D. 30 sq cm

Vertical Algorithm

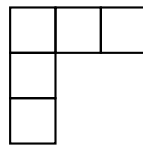
Hundreds	Tens	Ones
5	4	0
—	—	—
1	8	6

2)

Using the place-value chart, what is $540 - 186$?

- A. 354 C. 355
 B. 365 D. 366
- 3) Ben has 4 boxes with 5 markers in each. Which number sentence shows how many markers he has?
- A. $4 + 5 = 9$ C. $4 \times 4 = 16$
 B. $5 + 5 + 5 = 15$ D. $4 \times 5 = 20$

4) Here is a shape that looks like an "L" or corner, made of unit squares:



Count the unit squares in this L-shaped figure. How many are there?

- A. 3 unit squares C. 6 unit squares
 B. 5 unit squares D. 8 unit squares



Practice Test Answer Keys

How to use this section with a Grade 3 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.

Testinar.com



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(3.NF.A.2)** On a number line from 0 to 2, there are 8 equal parts. The fourth tick mark is at the midpoint, which is 1.
- 2) **Choice C is correct.** **(3.MD.B.3)** Count: 5 squares in the picture graph. Multiply by scale: $5 \times 2 = 10$ stickers.
- 3) **Choice D is correct.** **(3.OA.A.2)** $18 \div 6 = 3$. The picture shows 6 equal groups, each with 3 items.
- 4) **Choice D is correct.** **(3.MD.A.1)** Both the hour and minute hands point straight up (at 12) only at 12 : 00.
- 5) **Choice D is correct.** **(3.OA.D.8)** Step 1: Total sheets: $5 \times 10 = 50$ sheets. Step 2: Divide among students: $50 \div 5 = 10$ sheets per student.
- 6) **Choice D is correct.** **(3.OA.C.7)** Skip-counting by 2s: 0, 2, 4, 6, 8, 10. So $2 \times 5 = 10$.
- 7) **Choice A is correct.** **(3.MD.C.7)** Area = $6 \times 5 = 30$ square meters.
- 8) **Choice D is correct.** **(3.MD.C.5b)** $2 \times 5 = 10$ square units.
- 9) **Choice B is correct.** **(3.NF.A.3)** $\frac{4}{8}$ and $\frac{1}{2}$ both equal half of a whole.
- 10) **Choice D is correct.** **(3.OA.D.9)** Even numbers increase by 2: 2, 4, 6, 8, etc.
- 11) **Choice B is correct.** **(3.NF.A.3b)** The numerator was multiplied by 2 (from 1 to 2). Multiply the denominator by 2: $3 \times 2 = 6$. So $\frac{1}{3} = \frac{2}{6}$.
- 12) **The correct answer is 23 square feet.** **(3.MD.C.7d)** Rectangle 1: $7 \times 2 = 14$ sq ft. Rectangle 2: $3 \times 3 = 9$ sq ft. Total: $14 + 9 = 23$ sq ft.
- 13) **Choice C is correct.** **(3.MD.C.5a)** The grid is $3 \times 4 = 12$ unit squares.
- 14) **Choice D is correct.** **(3.OA.B.6)** The missing number is the product: $6 \times 7 = 42$. This fact family contains $6 \times 7 = 42$, $7 \times 6 = 42$, $42 \div 6 = 7$, and $42 \div 7 = 6$.
- 15) **Choices A and C are correct.** **(3.NBT.A.3)** $6 \times 40 = 240$ and $4 \times 60 = 240$. Choice B is $8 \times 20 = 160$, choice D is $3 \times 70 = 210$, and choice E is $6 \times 30 = 180$.
- 16) **Choice D is correct.** **(3.G.A.1)** A rhombus has 4 equal sides. If all angles were right angles, it would be a square. Since they are not, it is just a rhombus.
- 17) **The correct answer is 470.** **(3.NBT.A.1)** The ones digit is 5. Since $5 \geq 5$, round up: 465 rounds to 470.
- 18) **Choice C is correct.** **(3.MD.C.7b)** Area = width \times height = $6 \times 9 = 54$ square inches.
- 19) **Choice C is correct.** **(3.MD.C.7c)** $2 \times (9 + 1) = 2 \times 10 = 20$ or $(2 \times 9) + (2 \times 1) = 18 + 2 = 20$.
- 20) **Choice D is correct.** **(3.OA.A.4)** Divide: $40 \div 5 = 8$ apples per group.
- 21) **Choice B is correct.** **(3.NF.A.3c)** When numerator = denominator, the fraction equals 1 whole. $\frac{3}{3} = 1$.
- 22) **Choice A is correct.** **(3.NF.A.2a)** The first of four equal parts is $\frac{1}{4}$.
- 23) **Choice A is correct.** **(3.OA.A.3)** Divide: $36 \div 4 = 9$ pounds per animal.
- 24) **Choice B is correct.** **(3.NF.A.3d)** Same numerator: sixths are bigger pieces than eighths. Two sixths is greater than two eighths.
- 25) **Choice D is correct.** **(3.OA.A.1)** 9 cartons with 7 eggs each means 9 groups of 7. So $9 \times 7 = 63$ eggs.
- 26) **Choice A is correct.** **(3.MD.B.4)** The most common diameter is 2 inches because it has 3 X's, which is more than any other value.
- 27) **Choice A is correct.** **(3.MD.C.5)** The tile with an area of 9 square inches is smaller than the tile with 16 square inches. Smaller area means less space inside.
- 28) **Choice D is correct.** **(3.NBT.A.2)** Add: $176 + 245 = 421$. Ones: $6 + 5 = 11$ (write 1, carry 1). Tens: $7 + 4 + 1 = 12$ (write 2, carry 1). Hundreds: $1 + 2 + 1 = 4$.
- 29) **Choice C is correct.** **(3.MD.A.2)** Multiply: $400 \times 2 = 800$ g.
- 30) **The correct answer is 6.** **(3.NF.A.3a)** The denominator doubles, so the numerator doubles: $3 \times 2 = 6$.

Practice Test 2 Answers and Explanations



Hi, Math Athlete!

◇ 7 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

PRACTICE TODAY. MASTER TOMORROW.

This book is designed to help **Grade 3** students strengthen their math skills through focused practice and real progress.

- ✓ 7 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success
- ✓ Review, answer keys, and explanations



EACH PRACTICE TEST INCLUDES:



Standards-
Aligned
Questions



Variety of
Question
Types



Real-World
Math
Applications



Step-by-Step
Progress
Tracking



Build Skills
and Boost
Confidence

COVERS ALL ESSENTIAL TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ Graphing & Data Analysis
- ✓ And More!



Visit testinar.com/math3
for more Grade 3 math resources
and practice materials!

PREPARE. PRACTICE. SUCCEED.

Give your child the **confidence** to excel in math!



Aligned to
Standards



Created by
Educators



Designed for
Success