

7

Maine

Through Year Assessment

Grade 3 MATH

PRACTICE TESTS

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



7 Full-Length
Practice Tests



Standards-Aligned
Math Practice

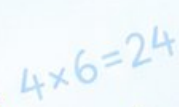


Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.

PREPARE
PRACTICE
SUCCEED



7 Maine Through Year Assessment 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



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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 Maine Through Year Assessment. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

Maine has rocky coastlines, pine woods, lighthouse beams, harbor charts, and quiet study spaces, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and use patient steps when the path is not obvious.

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 Maine students, each trail moves through rocky coastlines, pine woods, lighthouse beams, harbor charts, and quiet study spaces: 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 Maine 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 Maine Through Year Assessment path.



Scan me!
For more practice
& answers

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1) A rope is shown on a number line from 0 to 1 with 8 equal sections. Eli marks off one section. What fraction of the rope is one section?

- A. $\frac{1}{8}$
- B. $\frac{1}{7}$

- C. $\frac{8}{8}$
- D. $\frac{2}{8}$

2) A park needs sod for a rectangular field 9 feet long and 7 feet wide. What is the area?

- A. 32 sq ft
- B. 56 sq ft

- C. 63 sq ft
- D. 72 sq ft

3)

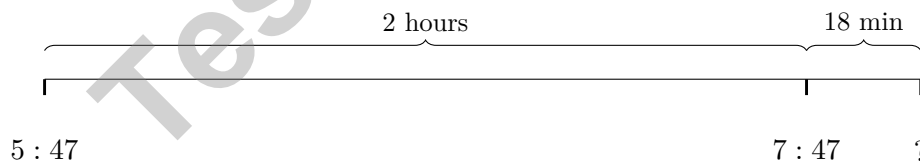


Which repeated addition matches this array?

- A. $3 + 3 = 6$
- B. $2 + 2 + 2 = 6$

- C. $3 + 3 + 3 = 9$
- D. $4 + 4 + 4 = 12$

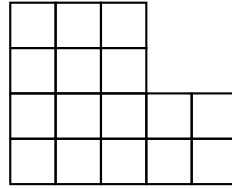
4) A farmer starts working at 5 : 47 AM. He works for 2 hours and 18 minutes. What time does he stop working?



- A. 8 : 00 AM
- B. 8 : 05 AM

- C. 8 : 10 AM
- D. 8 : 15 AM

5) This composite figure is shaped like an "L" made of unit squares:

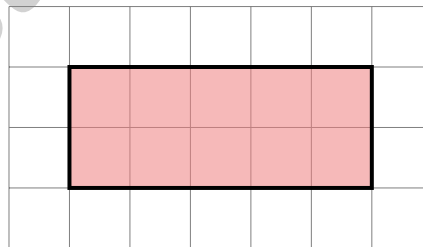


Count all the unit squares in this L-shaped figure. How many are there?

- A. 8 unit squares
 - B. 12 unit squares
 - C. 16 unit squares
 - D. 20 unit squares
- 6) A rectangular game board is 5 inches long and 4 inches wide. What is the area of the game board?



7) Look at the unit-square grid below. How many unit squares cover the entire shaded rectangle?



- A. 8 square units
- B. 10 square units
- C. 12 square units
- D. 15 square units



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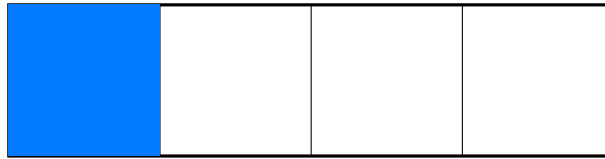
- 8) A bar graph shows inches of rainfall. Each unit on the scale represents 10 inches. If a bar is 3 units tall, how many inches of rainfall does it represent?



- 9) A baker puts 6 cookies on each plate. If there are 8 plates, how many cookies are there?
- A. 56 C. 42
 B. 54 D. 48
- 10) A soup recipe needs 1 liter of broth. Lily already poured 750 mL. How much more does she need in milliliters?
- A. 100 mL C. 250 mL
 B. 150 mL D. 500 mL
- 11) A rectangle has a length of 9 cm and a width of 4 cm. What is the area of the rectangle?
- A. 13 cm² C. 45 cm²
 B. 26 cm² D. 36 cm²
- 12) Noah has 12 cookies. His mom bakes 8 more cookies. Then Noah eats 6 cookies. How many cookies are left?
- A. 12 C. 20
 B. 14 D. 26



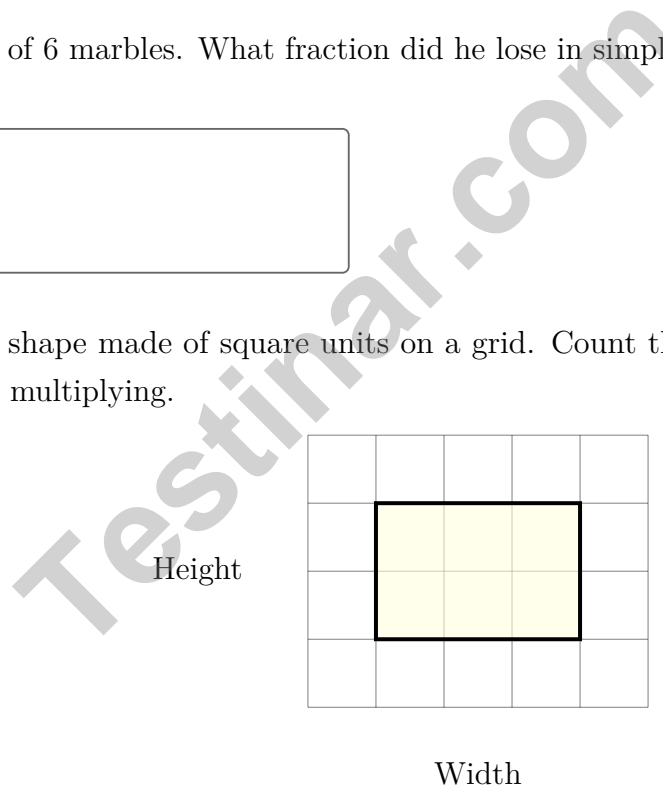
- 1) Look at the picture. The rectangle is divided into equal parts, and some parts are shaded.



Which fraction is shaded?

- A. $\frac{1}{4}$
 B. $\frac{4}{1}$
 C. $\frac{3}{4}$
 D. $\frac{2}{4}$
- 2) Noah loses 3 of 6 marbles. What fraction did he lose in simplest form?

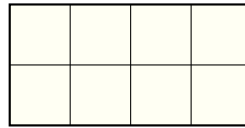
- 3) Look at this shape made of square units on a grid. Count the squares to find the area without multiplying.



Which square unit measurement is correct?

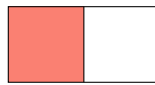
- A. 6 square units
 B. 7 square units
 C. 8 square units
 D. 9 square units

4) How many unit squares ($1\text{ cm} \times 1\text{ cm}$) are needed to cover a 4 cm by 2 cm rectangle?

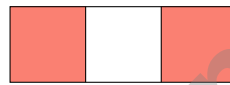


4 cm

- A. 6 unit squares C. 10 unit squares
 B. 8 unit squares D. 12 unit squares
- 5) Which pair of rectangles shows equivalent fractions?



A: $\frac{1}{2}$



B: $\frac{2}{3}$



C: $\frac{1}{3}$

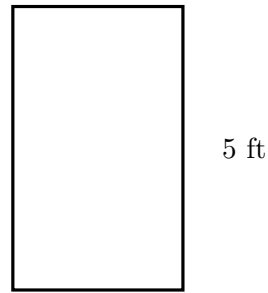


D: $\frac{2}{4}$

- A. A and B C. B and C
 B. C and D D. A and D
- 6) Ava makes 5 sets of picture cards. Each set has 20 cards. How many cards does Ava make?
- A. 25 C. 100
 B. 52 D. 1000



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1)

3 ft

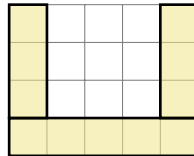
Find the area of this rectangle.

- A. 8 sq ft C. 12 sq ft
 B. 15 sq ft D. 30 sq ft

2) Sam has a rectangular picture frame that is 5 inches long and 7 inches wide. What is the area of the picture frame?

- A. 35 square inches C. 12 square inches
 B. 24 square inches D. 2 square inches

3) This grid shows a U-shaped figure made of unit squares. Count the squares carefully.



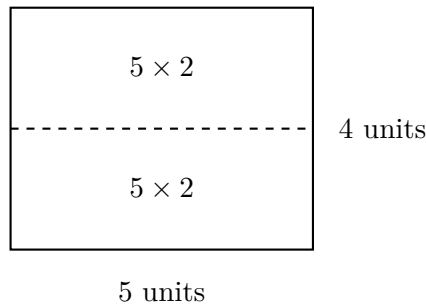
How many unit squares form this U-shape?

- A. 5 sq units C. 11 sq units
 B. 8 sq units D. 20 sq units



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& answers

4) Ava tiled two rectangles with the same width:



Which is the best way to write the total area?

- A. $(5 \times 2) + (5 \times 2) = 10$
 C. $5 + 2 + 2 = 9$
 B. $5 \times (2 + 2) = 5 \times 4 = 20$
 D. $5 + 2 + 2 = 10$
- 5) Complete the fact family. From the multiplication $7 \times 6 = 42$, which division is missing?

Multiplication	Division
$7 \times 6 = 42$	$42 \div 7 = 6$
$6 \times 7 = 42$	$42 \div 6 = \square$

- A. 6
 C. 42
 B. 1
 D. 7
- 6) Two numbers round to 300 when rounded to the nearest 100. Which pair could they be?
- A. 250 and 350
 C. 251 and 349
 B. 249 and 299
 D. 350 and 400



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.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice A is correct.** **(3.NF.A.2a)** One of eight equal sections is $\frac{1}{8}$.
- Choice C is correct.** **(3.MD.C.6)** Area = $9 \times 7 = 63$ square feet.
- Choice D is correct.** **(3.OA.A.1)** The array shows 3 columns with 4 squares in each column. This means $4 + 4 + 4 = 12$ or $3 \times 4 = 12$.
- Choice B is correct.** **(3.MD.A.1)** $5 : 47 + 2$ hours = $7 : 47$. Then $7 : 47 + 18$ min = $8 : 05$ AM.
- Choice C is correct.** **(3.MD.C.5b)** Count the left tall part: 3 columns and 4 rows = $4 + 4 + 4 = 12$ unit squares. Count the right bottom part: 2 columns and 2 rows = $2 + 2 = 4$ unit squares. Total: $12 + 4 = 16$ unit squares in this L-shaped figure.
- The correct answer is 20 square inches.** **(3.MD.C.7b)** Area = length \times width, so $5 \times 4 = 20$ square inches.
- Choice B is correct.** **(3.MD.C.5)** The shaded rectangle is 5 units wide and 2 units tall. $5 \times 2 = 10$ square units.
- The correct answer is 30 inches.** **(3.MD.B.3)** Multiply the units by the scale value: $3 \times 10 = 30$ inches.
- Choice D is correct.** **(3.OA.A.4)** Multiply: $6 \times 8 = 48$ cookies.
- Choice C is correct.** **(3.MD.A.2)** 1 L = 1000 mL. Subtract: $1000 - 750 = 250$ mL.
- Choice D is correct.** **(3.OA.A.3)** Area = length \times width = $9 \times 4 = 36$ cm².
- Choice B is correct.** **(3.OA.D.8)** Step 1: Add: $12 + 8 = 20$ cookies. Step 2: Subtract: $20 - 6 = 14$ cookies. (Choice C is step 1 only; choice A ignores new cookies.)
- Choice D is correct.** **(3.OA.D.9)** Even \times even = even, and even \times odd = even. Only odd \times odd = odd.
- Choice A is correct.** **(3.NF.A.3)** $\frac{2}{6}$ and $\frac{1}{3}$ equal the same amount.
- Choice B is correct.** **(3.NF.A.3c)** 15 thirds means $15 \div 3 = 5$ wholes. Each candy bar had 3 thirds.
- Choice C is correct.** **(3.NF.A.2)** The dot is at the 3rd mark out of 8 equal divisions, so the fraction is $\frac{3}{8}$.
- Choices A and C are correct.** **(3.NF.A.3a)** A: $\frac{1}{3} = \frac{2}{6}$ (both equal one-third). C: $\frac{3}{4} = \frac{6}{8}$ (both equal three-fourths). B is false because $\frac{4}{8} = \frac{1}{2}$. D is false because $\frac{1}{4} \neq \frac{3}{8}$. E is false because $\frac{2}{4} = \frac{1}{2} \neq \frac{3}{8}$.
- Choice C is correct.** **(3.NBT.A.1)** The ones digit is 9. Since $9 \geq 5$, round up: 429 rounds to 430.
- Choice B is correct.** **(3.NF.A.1)** Sam eats $\frac{1}{4}$ and Mia eats $\frac{1}{4}$. Together: $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$ is eaten, so $\frac{2}{4}$ remains.
- Choice A is correct.** **(3.NBT.A.2)** Subtract: $523 - 245 = 278$. Ones: $3 - 5$ requires regrouping, so $13 - 5 = 8$. Tens: $1 - 4$ requires regrouping, so $11 - 4 = 7$. Hundreds: $4 - 2 = 2$. Answer: 278.
- 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.
- Choice D is correct.** **(3.G.A.1)** The word “quadrilateral” means “four sides.” All quadrilaterals, whether squares, rectangles, or trapezoids, have exactly 4 sides.
- Choice C is correct.** **(3.NF.A.3b)** The denominator was multiplied by 3 (from 2 to 6). Multiply the numerator by 3: $1 \times 3 = 3$.
- Choice D is correct.** **(3.OA.A.2)** The bar model shows 20 items divided into 5 equal parts. $20 \div 5 = 4$ means each part has 4 items.
- Choice C is correct.** **(3.MD.C.7c)** Two equal rectangles each have area 14. Add the two parts: $14 + 14 = 28$ square units.
- Choice D is correct.** **(3.OA.B.6)** This is a division problem: $48 \div 6 = \square$ means $\square \times 6 = 48$. To find the missing factor, we think: 6 times what number gives 48? Since $8 \times 6 = 48$, Eli can complete 8 shirts. This shows how multiplication and division are inverse operations.
- Choice B is correct.** **(3.NBT.A.3)** 8 baskets with 10 apples each = $8 \times 10 = 80$ apples. You multiply $8 \times 1 = 8$, then multiply by 10 to get 80.
- Choice C is correct.** **(3.MD.C.5a)** If each unit square is 1 cm by 1 cm, then 7 unit squares of 1 cm fit along a 7 cm side.
- Choice B is correct.** **(3.NF.A.3d)** Same numerator: fifths are smaller pieces than fourths. Two fifths is less than two fourths.



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Hi, Math Detective!

◇ You did such a great job! You finished 7 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

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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:



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Questions



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Question
Types



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Math
Applications



Step-by-Step
Progress
Tracking



Build Skills
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Confidence

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