

7

Michigan

M STEP

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 Michigan M-STEP 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 Michigan M-STEP. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

Michigan has Great Lakes shores, forest roads, car plants, snowy sidewalks, and steady school routines, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and build answers one reliable part at a time.

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 Michigan students, each trail moves through Great Lakes shores, forest roads, car plants, snowy sidewalks, and steady school routines: 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 Michigan 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 Michigan M-STEP path.



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& answers

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- 1) A large rectangle is made of two tiled rectangles. One is 5×9 and the other is 5×3 . What is the equation in distributive form?
- A. $5 \times (9 + 3) = 5 \times 12 = 60$ C. $9 + 3 = 12$
 B. $(5 + 9) + (5 + 3) = 21$ D. $5 \times 9 \times 3 = 135$
- 2) Eli has 35 apples. He uses 5 apples to make a pie. He divides the remaining apples equally among 6 friends. How many apples does each friend get?
- A. 5 C. 7
 B. 6 D. 30
- 3) Which missing divisor makes this division sentence true?
 $18 \div _ = 3$
- A. 5 C. 21
 B. 15 D. 6
- 4) How many vertices (corners) does a quadrilateral have?
- A. 2 C. 6
 B. 3 D. 4
- 5) Lily gives 2 of her 8 stickers away. What fraction did she give?
- A. $\frac{1}{2}$ C. $\frac{3}{4}$
 B. $\frac{1}{4}$ D. $\frac{2}{3}$
- 6) A garden is arranged in an array with 7 rows and 3 plants in each row. How many plants are in the garden?
- A. 21 C. 10
 B. 19 D. 24



- 7) A unit square in centimeters has side length 1 cm. What is the area of the unit square in square centimeters?

- 8) If you have the number ____, and you round it to the nearest 10, you get 70. You also know the number is odd. Which number could it be?

- A. 65 C. 72
 B. 68 D. 74

- 9) This grid shows a rectangle made of unit squares.



What is the area in square units?

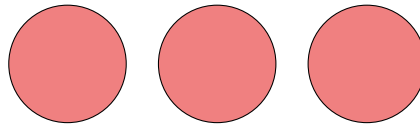
- A. 10 sq units C. 24 sq units
 B. 18 sq units D. 28 sq units

- 10) A classroom is shaped like a square with sides of 9 meters. What is the area of the classroom in square meters?



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11) The circles below are completely shaded. How many wholes do they show?



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

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

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

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

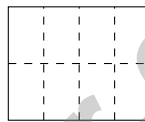
12) A picture graph shows cupcakes baked for a party. Each cupcake icon is 5 cupcakes. There are 7 icons. How many cupcakes were baked?

A. 12

B. 30

C. 35

D. 40



13)

This rectangle is divided into equal parts. What multiplication sentence shows this?

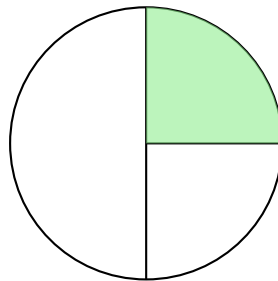
A. $2 \times 2 = 4$

B. $3 \times 2 = 6$

C. $5 \times 2 = 10$

D. $4 \times 2 = 8$

14) A circle is divided into 2 equal halves. One half is divided again into 2 equal parts. Which fraction shows one of the smaller parts?



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

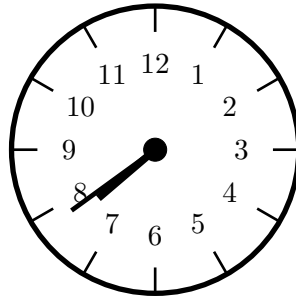
B. $\frac{1}{4}$

C. $\frac{2}{4}$

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



1) What time does the clock show?



- A. 6 : 39
- B. 7 : 50
- C. 8 : 09
- D. 7 : 39

2) A picture graph shows donated items. Each box represents 10 items. There are 8 boxes. How many items were donated?

- A. 18
- B. 70
- C. 80
- D. 90

3) Noah has $\frac{2}{6}$ of a chocolate bar. What is an equivalent fraction that shows the same amount?

- A. $\frac{1}{3}$
- B. $\frac{1}{2}$
- C. $\frac{2}{3}$
- D. $\frac{3}{6}$

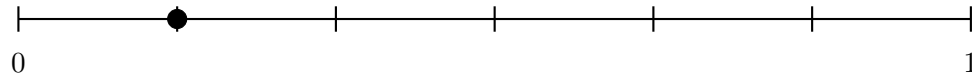
4) This array has 2 rows. Each row has 50 squares. How many squares in total?



$$2 \times 50 = ?$$

- A. 52
- B. 25
- C. 100
- D. 1000

- 5) A number line from 0 to 1 has 6 equal parts. The dot shown is closest to which fraction?

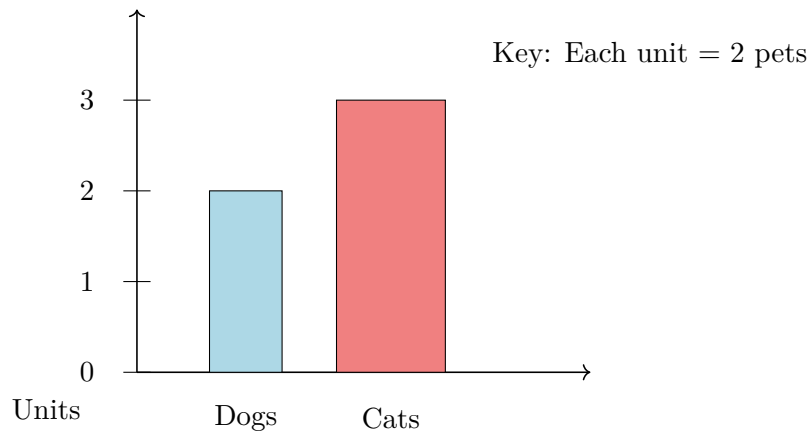


- A. $\frac{1}{6}$
 C. $\frac{1}{5}$
 B. $\frac{2}{6}$
 D. $\frac{4}{6}$
- 6) A square rug has side length 5 meters. What is its area?
- A. 10 sq m
 C. 25 sq m
 B. 20 sq m
 D. 30 sq m
- 7) Which equation is false?
- A. $6 \times (10 + 1) = (6 \times 10) + (6 \times 1) = 60 + 6 = 66$
 C. $3 \times (7 + 1) = (3 \times 7) + (3 \times 1) = 21 + 3 = 24$
 B. $4 \times (5 + 2) = (4 \times 5) + (4 \times 2) = 20 + 8 = 28$
 D. $5 \times (6 + 3) = 5 \times 6 - 5 \times 3 = 30 - 15 = 15$
- 8) A rectangular poster has dimensions of 11 inches by 8 inches. What is the area of the poster?
- A. 88 square inches
 C. 19 square inches
 B. 38 square inches
 D. 99 square inches



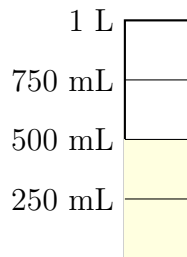
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1) Look at the bar graph. What is the height of each bar in units?



- A. Dogs is 3 units, Cats is 2 units. C. Dogs is 2 units, Cats is 2 units.
 B. Dogs is 2 units, Cats is 3 units. D. Dogs is 1 unit, Cats is 4 units.
- 2) 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



3)

Container

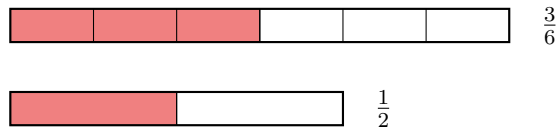
A liquid container is filled to the 750 mL line. How much more liquid is needed to reach 1 liter?

- A. 100 mL C. 250 mL
 B. 150 mL D. 750 mL



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4) Which fraction is equivalent to $\frac{3}{6}$?



- A. $\frac{2}{5}$
 C. $\frac{1}{2}$
 B. $\frac{1}{3}$
 D. $\frac{2}{6}$
- 5) Ava has two square tiles. One tile has an area of 9 square inches. The other has an area of 16 square inches. Which tile is smaller?
- A. The 9 square inch tile
 C. Both tiles are the same size
 B. The 16 square inch tile
 D. Cannot be determined
- 6) Ava has a rectangular piece of paper. The length is 7 inches and the width is 2 inches. What is the area?
- A. 9 sq in
 C. 12 sq in
 B. 14 sq in
 D. 18 sq in
- 7) What number makes the equation true?

$$48 \div \square = 6$$

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



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.MD.C.7c)** Both rectangles share width 5. Adding them means adding the other dimensions: $9 + 3 = 12$, so $5 \times (9 + 3)$.
- Choice A is correct.** **(3.OA.D.8)** Step 1: Subtract: $35 - 5 = 30$ apples. Step 2: Divide: $30 \div 6 = 5$ apples per friend. (Choice D is step 1 only.)
- Choice D is correct.** **(3.OA.A.2)** If $18 \div ? = 3$, then $? = 6$ because $6 \times 3 = 18$. Check: $18 \div 6 = 3$ is correct.
- Choice D is correct.** **(3.G.A.1)** A quadrilateral has 4 vertices (corners), one at each place where two sides meet.
- Choice B is correct.** **(3.NF.A.3)** Lily gave 2 out of 8 stickers, which is $\frac{1}{4}$.
- Choice A is correct.** **(3.OA.A.3)** Multiply: 7 rows \times 3 plants per row = 21 plants.
- The correct answer is 1 cm².** **(3.MD.C.5a)** Area = side length \times side length = 1 cm \times 1 cm = 1 square centimeter.
- Choice A is correct.** **(3.NBT.A.1)** Numbers from 65 to 74 round to 70. Among choices, A (65) is odd and rounds to 70. B (68) is even. C (72) is even. D (74) is even.
- Choice C is correct.** **(3.MD.C.6)** 4 units wide \times 6 units tall = 24 unit squares.
- The correct answer is 81 square meters.** **(3.MD.C.5)** For a square, multiply side by side: $9 \times 9 = 81$ square meters.
- Choice C is correct.** **(3.NF.A.3c)** Three complete circles = 3 wholes = $\frac{3}{1}$.
- Choice C is correct.** **(3.MD.B.3)** $7 \times 5 = 35$ cupcakes.
- Choice D is correct.** **(3.OA.A.1)** The rectangle has 4 columns and 2 rows of equal parts. So $4 \times 2 = 8$ parts in total.
- Choice B is correct.** **(3.G.A.2)** One half divided into 2 equal parts creates quarters. One quarter is $\frac{1}{4}$.
- Choice D is correct.** **(3.OA.A.4)** Both $5 \times 6 = 30$ and $30 \div 5 = 6$ are in the same fact family.
- Choices A and C are correct.** **(3.MD.A.1)** 45 minutes after 3 : 00 PM is 3 : 45 PM, so choices A and C match. Choice B is 4 : 15 PM, choice D is in the morning, and choice E is 4 : 05 PM.
- Choice C is correct.** **(3.MD.B.4)** The mode is the value with the most X's. At $16\frac{1}{2}$, there are 3 X's, which is more than any other value.
- Choice C is correct.** **(3.MD.C.5b)** 3 columns and 4 rows: $3 \times 4 = 12$ unit squares.
- Choice C is correct.** **(3.OA.D.9)** Add 6 each time: $36 + 6 = 42$. This is the pattern for multiples of 6.
- The correct answer is 383.** **(3.NBT.A.2)** Add to find the starting amount: $145 + 238 = 383$. Check: $383 - 145 = 238$.
- Choice C is correct.** **(3.NBT.A.3)** 5 sets of 20 cards = $5 \times 20 = 100$ cards. Multiply $5 \times 2 = 10$, then add one zero.
- Choice C is correct.** **(3.MD.A.2)** Add: $1000 + 800 = 1800$ g.
- Choice C is correct.** **(3.MD.C.7d)** Add all three: $8 + 5 + 5 = 18$ square meters.
- Choice B is correct.** **(3.NF.A.3b)** Pie 1 shows $\frac{1}{2}$ (half shaded) and Pie 3 shows $\frac{2}{4}$ (half shaded). Both represent the same amount: $\frac{1 \times 2}{2 \times 2} = \frac{2}{4}$.
- Choice C is correct.** **(3.OA.B.5)** This is false. $8 \times 6 = 48$ but $7 \times 6 + 1 = 42 + 1 = 43$. Option C does not follow any property.
- Choice C is correct.** **(3.MD.C.7)** $3 \times 5 = 15$ square units. Choice A gives 18, B gives 16, and D gives 16.
- Choice B is correct.** **(3.NF.A.2)** Reading left to right on the number line: first tick ($\frac{1}{6}$), third tick ($\frac{3}{6}$), fifth tick ($\frac{5}{6}$). Least to greatest.
- Choice A is correct.** **(3.NF.A.2a)** Six equal parts means the first tick is at unit fraction $\frac{1}{6}$.
- Choice B is correct.** **(3.NF.A.3d)** CRITICAL: Fraction comparisons are ONLY valid when both fractions describe the same-size whole. Since pizza B is bigger than pizza A, $\frac{1}{4}$ of the smaller pizza may actually be bigger than $\frac{1}{6}$ of the larger pizza. We cannot compare them. Standard 3.NF.A.3.d requires recognizing that comparisons are valid only when the two fractions refer to the same whole.
- Choice A is correct.** **(3.OA.B.6)** The array has 5 columns and 20 dots total, so $20 \div 5 = 4$ dots in each column.



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A Quiet Word From Your Mentor

Hi, Thoughtful Student,

◇ I want to take a moment to tell you something true: you did excellent work. 7 practice tests is a real promise that you kept to yourself. That matters. ◇

★ **Mentors notice:** growth is quiet. It doesn't shout. But it shows up in how you handle a problem today vs how you did weeks ago. That growth is your real prize. ★

What I See in You

- **Hard Work:** You don't quit when problems are tough.
- **Curiosity:** You wonder why and how.
- **Kindness:** You are patient with yourself.
- **Brave Heart:** You try things that scare you.

Mentor's note: on test day, treat yourself like you would a friend. Be kind. Be patient. Be encouraging. The skills are inside you!

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

Jay Daie

Your Math Mentor

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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
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Build Skills
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