

# 5 Michigan

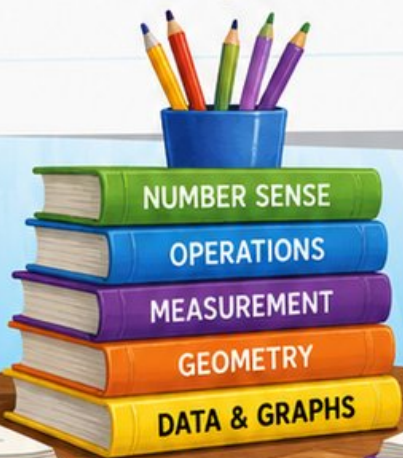
## M STEP

### GRADE 3

# MATH

## PRACTICE TESTS

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



**5** FULL-LENGTH  
PRACTICE TESTS



STANDARDS-  
ALIGNED  
PRACTICE



DETAILED  
ANSWER KEYS



CLEAR  
EXPLANATIONS  
TO HELP YOU SUCCEED



3



$$\begin{array}{r} 125 \\ + 37 \\ \hline \end{array}$$



$$24 \div 3 = 8$$

# 5 Michigan M-STEP Grade 3 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Five focused 30-question checkpoints for Grade 3 math: facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

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# Welcome to the Five Checkpoint Quest

Five tests, five fresh starts, and one stronger Grade 3 thinker



Read. Model. Solve. Check. Grow.

## To the Grade 3 Math Explorer

This book gives you five practice checkpoints for the Michigan M-STEP. Each checkpoint is a full 30-question test, so you can practice stamina, accuracy, and the habit of showing what you know.

Michigan has Great Lakes, forest paths, bridge crossings, and shorelines that call for careful checks. Strong math uses the same kind of careful planning: look at the path, choose a tool, and check your work before moving ahead.

### Notice

Circle key words, units, and numbers before you start.

### Build

Use arrays, number lines, equations, tables, or sketches.

### Verify

Ask, "Does this answer fit the question?"

**Five-checkpoint promise:** I will try each test with patience, mark my mistakes honestly, and use every correction to make the next checkpoint stronger.

# How to Use This Book

A five-step routine for steady Grade 3 growth

Use one checkpoint at a time. A good pace is one test, one careful review, and one short skill tune-up before the next test.

1. **Preview the tools.** Skim the reference page and remember where multiplication, fractions, measurement, and shapes appear.
2. **Take one full test.** Work neatly. If a problem feels stuck, mark it and keep moving.
3. **Check the answer key.** Notice the question type: multiple choice, select all, or open-ended.
4. **Study explanations.** Pick two missed questions and redo them without looking.
5. **Choose the next focus.** Write one habit to carry into the next checkpoint.

**Best review habit:** Do not just ask, “What was the answer?” Ask, “What clue did I miss, and what tool should I try next time?”



## What Is Inside?

Five complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–5	Solve five different 30-question tests.	Build stamina and see many Grade 3 skills mixed together.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read the reason behind each answer.	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. That mix gives students practice with quick choices, careful reasoning, and short written answers.

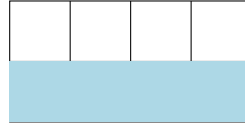


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& answers

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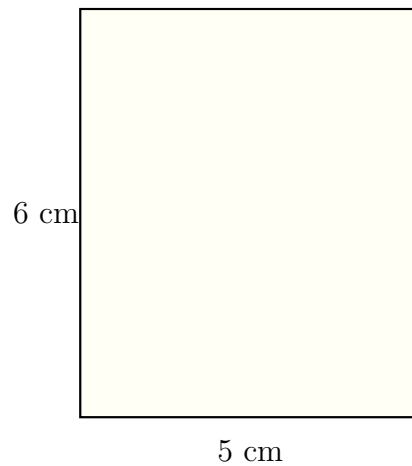
- 1) Look at the rectangle divided into 8 equal parts. Which fraction in eighths describes the shaded part?



- A.  $\frac{1}{8}$                        C.  $\frac{4}{8}$   
 B.  $\frac{2}{8}$                        D.  $\frac{3}{8}$
- 2) A square is 8 units on each side. A rectangle is 4 units by 16 units. Compare their areas. Which statement is true?
- A. The square has more area                       C. They have exactly the same area  
 B. The rectangle has more area                       D. The square is longer
- 3) Eli is filling a rectangular mat with colored unit square patches. The mat measures 11 units by 3 units. How many patches will he need?
- A. 14 patches                       C. 33 patches  
 B. 27 patches                       D. 44 patches



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4)

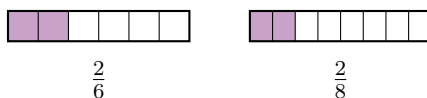
A rectangular notebook is 5 centimeters wide and 6 centimeters tall. Find the area.

 A. 11 sq cm C. 22 sq cm B. 30 sq cm D. 60 sq cm

5) 15 apples are shared equally among 3 baskets. Find  $15 \div 3$  to show how many apples are in each basket.

6) Ben has 36 books. He puts them equally on 4 shelves. How many books are on each shelf?

 A. 9 C. 10 B. 8 D. 12



7)

Which is true?

- A.  $\frac{2}{6} < \frac{2}{8}$
- B.  $\frac{2}{6} > \frac{2}{8}$

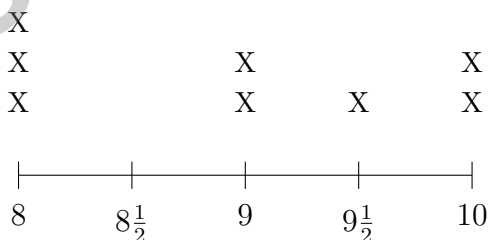
- C.  $\frac{2}{6} = \frac{2}{8}$
- D.  $\frac{2}{8} > \frac{2}{6}$

8) Find  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ .

9) Which expanded number sentence uses the distributive property?

- A.  $2 \times (6 + 4) = 2 \times 6 + 4 = 16$
- B. Neither is correct
- C.  $2 \times (6 + 4) = 2 + 6 + 4 = 12$
- D.  $2 \times (6 + 4) = 2 \times 6 + 2 \times 4 = 12 + 8 = 20$

10) Lily made a line plot of marble diameters in millimeters using halves: 8,  $8\frac{1}{2}$ , 9,  $9\frac{1}{2}$ , 10.



Which marble size appears least often?

- A. 8 mm
- B.  $8\frac{1}{2}$  mm
- C.  $9\frac{1}{2}$  mm
- D. 10 mm



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1) A candy bar is divided into 2 equal pieces. You eat one piece. What fraction of the candy bar do you eat?

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

B.  $\frac{2}{2}$

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

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

2) Kai skip counts by 6: 6, 12, 18, 24, 30.  
Which number should come next?

A. 32

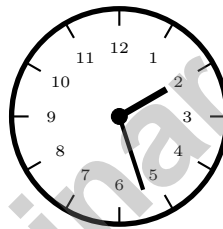
B. 35

C. 36

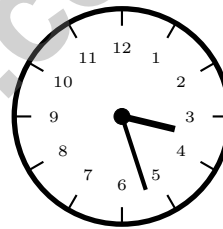
D. 40

3) Which clock shows 3 : 27?

Clock 1



Clock 2



A. Clock 1

B. Clock 2

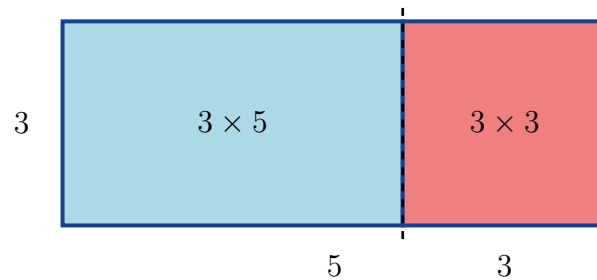
C. Neither

D. Both



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- 4) Mia splits a rectangle to show  $3 \times 8 = 3 \times (5 + 3)$ .



What is  $3 \times 5 + 3 \times 3$ ?

- A. 14                       C. 27  
 B. 20                       D. 24
- 5) A square tile has sides of 6 centimeters. How many unit squares cover the tile?  
Explain how you counted: did you count by rows or skip-count?

- 6) Ava skip-counts by thirds from 0 on a number line from 0 to 3 divided into thirds. She says:  $0, \frac{1}{3}, \frac{2}{3}, 1, \frac{4}{3}, \dots$ . At what point does she say  $\frac{7}{3}$ ?
- A. At 1                       C. At 3  
 B. Between 2 and 3       D. Before  $\frac{1}{3}$

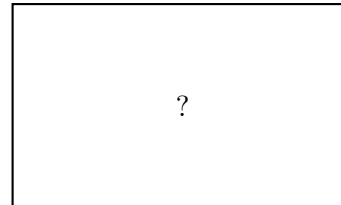


1) A pizza is cut into 8 equal slices. What fraction represents one slice?

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

- C.  $\frac{8}{1}$   
 D.  $\frac{1}{8}$

3 inches



2)

5 inches

What is the area of this rectangle?

- A. 8 sq in  
 B. 15 sq in

- C. 10 sq in  
 D. 12 sq in

3) On a number line from 0 to 1 divided into 4 equal parts, how many unit fractions  $\frac{1}{4}$  fit between 0 and the second tick?

- A. 1  
 B. 2

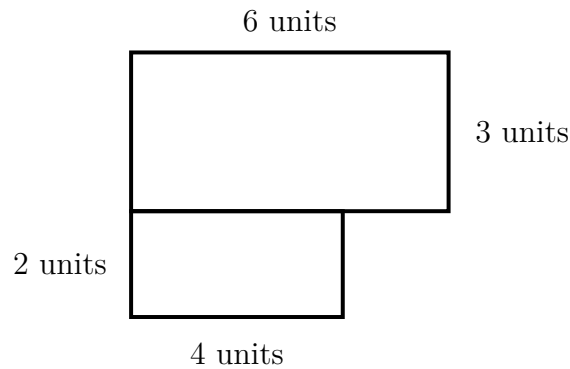
- C. 3  
 D. 4

4) How many odd numbers are in the pattern 4, 8, 12, 16, 20, 24, 28? Explain why.



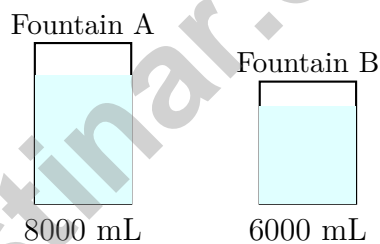
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- 5) An L-shaped deck is shown with dashed lines. Upper part: 6 units by 3 units. Lower left part: 4 units by 2 units. What is the total area?



- A. 15 sq units                       C. 26 sq units  
 B. 30 sq units                       D. 48 sq units

### Two Fountains



6)

A park has two water fountains. Fountain A holds 8000 mL and Fountain B holds 6000 mL. Which fountain holds less water?

- A. Fountain A                       C. Both hold the same  
 B. Fountain B                       D. Cannot determine



## 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 C is correct.** (3.NF.A.3b) The rectangle has 8 equal parts and 4 are shaded, so the shaded fraction written in eighths is  $\frac{4}{8}$ .
- Choice C is correct.** (3.MD.C.5) Square:  $8 \times 8 = 64$  square units. Rectangle:  $4 \times 16 = 64$  square units. Many different shapes can have the same area.
- Choice C is correct.** (3.MD.C.5b)  $11 \times 3 = 33$  unit square patches.
- Choice B is correct.** (3.MD.C.7b) Area = width  $\times$  height =  $5 \times 6 = 30$  square centimeters.
- The correct answer is 5.** (3.OA.A.2)  $15 \div 3 = 5$ . Each basket has 5 apples.
- Choice A is correct.** (3.OA.A.3) Divide:  $36 \div 4 = 9$  books per shelf.
- Choice B is correct.** (3.NF.A.3d) Same numerator: sixths are bigger pieces than eighths. Two sixths is greater than two eighths.
- The correct answer is  $\frac{3}{8}$ .** (3.NF.A.1) Add the numerators:  $1 + 1 + 1 = 3$ , so the sum is  $\frac{3}{8}$ .
- Choice D is correct.** (3.OA.B.5) The distributive property multiplies 2 by each addend:  $2 \times 6 + 2 \times 4 = 12 + 8 = 20$ .
- Choice B is correct.** (3.MD.B.4) At  $8\frac{1}{2}$  there are no X's, so it appears least often.
- Choice D is correct.** (3.MD.C.7) Area = rows  $\times$  columns =  $4 \times 5 = 20$  square units.
- Choice B is correct.** (3.MD.A.1)  $3 : 45 - 12 \text{ min} = 3 : 33 \text{ PM}$ .
- Choice C is correct.** (3.G.A.1) A rectangle has 4 right angles, and a rhombus has 4 equal sides; both are quadrilaterals. They share the attribute of having four sides, even though they differ in other properties.
- Choice C is correct.** (3.MD.B.3) Red:  $2 \times 3 = 6$ . Yellow:  $4 \times 3 = 12$ . Total:  $6 + 12 = 18$ .
- Choices A and C are correct.** (3.MD.C.7d) A is correct: multiply to find the first rectangle's area. C is correct: add the areas of all rectangles to get the total. B demonstrates the computation but C shows the critical additive step. D is wrong (do not multiply all dimensions together). E is wrong (rectangles can be any size as long as they don't overlap; the additive principle still holds).
- Choice B is correct.** (3.OA.D.8) Step 1: Multiply:  $3 \times 5 = 15$  apples. Step 2: Subtract:  $15 - 3 = 12$  apples left. (Choice C is step 1 only; choice A miscalculates step 2.)
- Choice D is correct.** (3.NBT.A.1) The tens digit is 9. Since  $9 \geq 5$ , round up: 893 rounds to 900.
- Choice A is correct.** (3.NBT.A.2) Ones:  $4 + 6 = 10$  (write 0, carry 1). Tens:  $5 + 8 + 1 = 14$  (write 4, carry 1). Hundreds:  $3 + 1 + 1 = 5$ . Answer: 540.
- Choice B is correct.** (3.MD.A.2) 3 kg = 3000 g. Subtract:  $3000 - 1500 = 1500$  g.
- Choice B is correct.** (3.MD.C.5a) Option B is  $2 \times 3 = 6$  unit squares. Option A has 3 unit squares, Option C has 4, and Option D has 5.
- Choice D is correct.** (3.NF.A.3c) 6 thirds equals 2 wholes. Each whole has 3 thirds, so  $6 \div 3 = 2$  wholes.
- Choice D is correct.** (3.OA.B.6) A bar model dividing a total into equal parts shows division. 30 split into 5 equal parts means each part is  $30 \div 5 = 6$ .
- Choice D is correct.** (3.OA.A.4) In this fact family,  $24 \div 3 = 8$ . This is the division equation that matches the multiplication  $3 \times 8 = 24$ .
- Choice D is correct.** (3.NBT.A.3)  $9 \times 20 = 180$  (multiply  $9 \times 2 = 18$ , add zero),  $6 \times 30 = 180$  (multiply  $6 \times 3 = 18$ , add zero), and  $18 \times 10 = 180$ . But  $3 \times 50 = 150$  (multiply  $3 \times 5 = 15$ , add zero), so choice D does not equal 180.
- Choice D is correct.** (3.OA.D.9) This is the commutative property of multiplication:  $a \times b = b \times a$ .
- The correct answer is 8.** (3.NF.A.2a) Eight equal parts of size  $\frac{1}{8}$  each sum to the whole interval.
- Choice C is correct.** (3.NF.A.2b)  $\frac{6}{6}$  means six sixths, which make one whole. The point is at 1.
- Choice C is correct.** (3.NF.A.2) The dot is at 1 tick out of 2 equal parts, so the fraction is  $\frac{1}{2}$ .
- 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 C is correct.** (3.MD.C.7c)  $2 \times (9 + 1) = 2 \times 10 = 20$  or  $(2 \times 9) + (2 \times 1) = 18 + 2 = 20$ .



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& answers

## Hi, Brave Explorer!

◇ What a trip! You explored 5 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 5 tests, you learned a lot. You are a stronger math explorer now. ★

### Your Explorer Tools

- **Map Reading:** You read problems carefully.
- **Trail Skills:** You take steps in the right order.
- **Backpack:** You have many math tools.
- **Brave Heart:** You explore even hard problems.

**Explorer tip:** on test day, use the tools you packed. You have the skills. You are ready!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Trail Guide

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# Build Skills. Boost Confidence.

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This book provides 5 full-length Grade 3 math practice tests that follow standards and help students achieve real results.



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### Answer Keys & Explanations

Detailed answers that show steps and clear reasoning.



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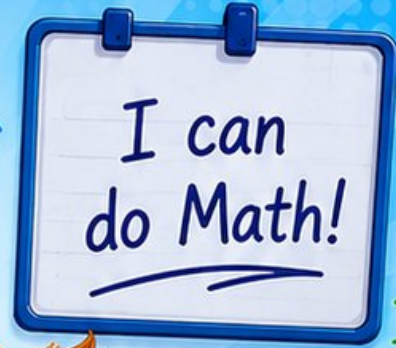
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- ✓ Operations & Algebraic Thinking
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- ✓ Data & Graphs
- ✓ Word Problems
- ✓ And More!



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$$\begin{array}{r} 7 \times 8 \\ \hline = 56 \end{array}$$

$$\begin{array}{r} 36 \\ \div 4 = 9 \end{array}$$

$$\begin{array}{r} 452 \\ -178 \\ \hline = 274 \end{array}$$



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