

4

Michigan M STEP

Grade 3

MATH

PRACTICE TESTS

Standards-Aligned Practice



STANDARDS-ALIGNED

Practice to build skills and boost confidence



4 FULL-LENGTH TESTS

Realistic questions to prepare for test day



ANSWER KEYS & EXPLANATIONS

Detailed solutions to learn and improve



4 Michigan M-STEP Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



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

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Welcome to the Michigan Math Launch

Four missions, careful work, and a stronger Grade 3 thinker



Read the mission. Show the work. Check the answer. Launch again.

To the Grade 3 Mission Leader

This book is a four-mission practice launch for the Michigan M-STEP. Each test gives you a fresh chance to multiply, divide, read graphs, compare fractions, measure, find area, and explain math in a way someone else can follow.

Michigan has Great Lakes, forest paths, and bridge crossings that call for careful checks. Good math uses the same habit: pause, check the details, and move forward with a steady plan.

Notice

Find the numbers, units, and question before choosing a path.

Model

Draw an array, number line, table, or quick equation.

Verify

Ask whether your answer fits the story and the unit.

Launch promise: I will slow down at the important moments, show the work I can, and use every miss as a clue for the next mission.

How to Use This Book

A four-mission routine for steady Grade 3 growth

1. Warm Up the System

Read the review pages first. Remind your brain how equal groups, fractions, clocks, graphs, and area models work.

2. Fly One Mission

Take one complete 30-question test. Keep your work neat enough that you can check it later.

3. Review the Flight

Use the answer key, then pause. A wrong answer is useful when you can name what happened.

4. Repair and Relaunch

Rework a few missed questions before starting the next test. The repair step is where the score begins to move.

A Four-Session Plan

Session 1	Take Test 1 and mark the topics that need attention.
Session 2	Take Test 2 and focus on showing every step clearly.
Session 3	Take Test 3 and watch for units, labels, and two-step problems.
Session 4	Take Test 4 and finish with calm, careful checking.

Best mission habit: After checking answers, write one sentence: “Next time I will pay attention to _____.”



Test Overview

What each Grade 3 math mission asks you to do

Each practice test has 30 questions. Across four tests, you will practice the kind of Grade 3 math thinking used on the Michigan M-STEP: reading carefully, choosing a strategy, doing accurate computation, and explaining enough work to make your answer clear.

Multiple Choice

Look for the best answer. Estimate first when you can, cross out choices that do not fit, and reread the question before you choose.

Open Response

Write the answer and show the reason. A good Grade 3 response may use a drawing, equation, table, number line, or a few clear words.

Math Ideas Inside the Four Tests

- multiplication, division, arrays, missing factors, and two-step word problems
- place value, rounding, addition, subtraction, and multiplying by tens
- unit fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shape categories

What strong M-STEP work looks like: the answer matches the question, the units make sense, and the work is clear enough to check.



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- 1) On a number line from 0 to 1 with 3 equal parts, which fraction is NOT a tick mark?



- A. $\frac{1}{3}$
 C. $\frac{3}{3}$
 B. $\frac{2}{3}$
 D. $\frac{1}{4}$
- 2) A line plot shows rock weights in ounces: 3, $3\frac{1}{2}$, 4, $4\frac{1}{2}$. There are 4 X's at $3\frac{1}{2}$ ounces, 2 X's at 3 ounces, and 3 X's at 4 ounces. How many rocks weigh less than 4 ounces?

- A. 4
 C. 6
 B. 5
 D. 7

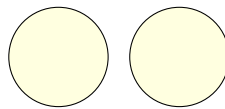
- 3) The theater has 8 rows of seats. Each row has 30 seats. How many seats are in the theater?

- A. 38
 C. 240
 B. 83
 D. 2400

- 4) Ben reads for 18 minutes starting at 4 : 07 PM. At what time does Ben stop reading?

- A. 4 : 15 PM
 C. 4 : 25 PM
 B. 4 : 20 PM
 D. 4 : 30 PM

- 5) The shaded circles show $\frac{2}{1}$. Which picture matches?



Two whole circles

- A. Two circles, one shaded
 C. Two circles, both fully shaded
 B. One circle shaded
 D. One circle divided in half

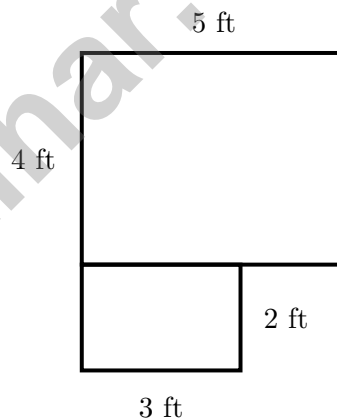


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- 11) A rectangle is divided into 4 equal columns. Mia shades 1 column. What fraction of the rectangle does she shade?



- A. $\frac{1}{4}$ C. $\frac{1}{2}$
 B. $\frac{2}{4}$ D. $\frac{1}{3}$
- 12) What do all quadrilaterals have in common?
- A. They all have right angles C. They all have parallel sides
 B. They all have equal sides D. They all have 4 sides
- 13) An L-shaped patio is shown with dashed lines dividing it into two rectangles. The first rectangle is 5 ft by 4 ft. The second is 3 ft by 2 ft. What is the total area of the patio?



- A. 26 sq ft C. 14 sq ft
 B. 20 sq ft D. 40 sq ft



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1) What number makes the equation true?

$$\square \times 4 = 28$$

A. 6

C. 24

B. 32

D. 7

2) Look at the pattern in the table. What is 8×10 ?

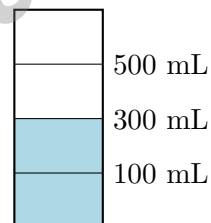
Problem	Product
3×10	30
5×10	50
7×10	70
8×10	?

A. 18

C. 810

B. 80

D. 108



Measuring Cup

3)

A measuring cup shows 300 mL of juice. If Eli pours in 200 mL more, what will the measuring cup show?

A. 200 mL

C. 400 mL

B. 300 mL

D. 500 mL



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4) An L-shaped patio is shown with parts having areas 32 sq units and 15 sq units. What is the total?

A. 17 sq units

B. 47 sq units

C. 64 sq units

D. 480 sq units

5) Which fraction equals the whole number 2?

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

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

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

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

6) A rectangle uses 5 unit squares in each row. If there are 7 rows, how many unit squares are used in all?



7) Maria draws a rectangle on a grid. The rectangle is 5 units long and 3 units wide. She counts 12 unit squares instead of 15. What did Maria do wrong?

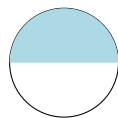
A. She counted the perimeter instead of area

B. She counted only the edges, not the whole inside

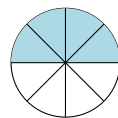
C. She multiplied 4 and 3 instead of 5 and 3

D. She added instead of multiplied

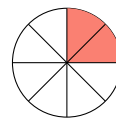
8) Which two circles show equivalent fractions?



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



Circle 2: $\frac{4}{8}$



Circle 3: $\frac{2}{8}$

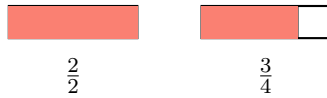
A. Circles 1 and 2

B. Circles 1 and 3

C. Circles 2 and 3

D. All three circles





1)

Order these fractions from smallest to largest: $\frac{3}{4}$, $\frac{2}{2}$, $\frac{3}{8}$.

A. $\frac{2}{2}$, $\frac{3}{4}$, $\frac{3}{8}$

C. $\frac{3}{4}$, $\frac{3}{8}$, $\frac{2}{2}$

B. $\frac{3}{8}$, $\frac{3}{4}$, $\frac{2}{2}$

D. $\frac{3}{8}$, $\frac{2}{2}$, $\frac{3}{4}$

2) A unit square measures 1 centimeter by 1 centimeter. How many unit squares are needed to cover a 5 cm by 4 cm rectangle?

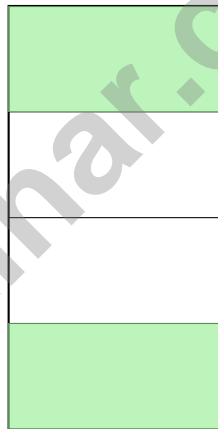
A. 9 unit squares

C. 20 unit squares

B. 18 unit squares

D. 25 unit squares

3) Here is a rectangle divided into equal parts horizontally.



The rectangle is divided into 4 equal parts. Two parts are shaded. What fraction is shaded?

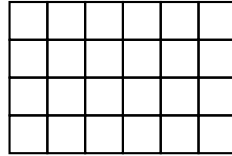
A. $\frac{2}{4}$

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

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

D. $\frac{3}{8}$

- 4) A rectangle is made of 4 rows of unit squares. The total area is 24 square units. Look at the grid:



How many unit squares are in each row?

- A. 4 unit squares per row C. 6 unit squares per row
 B. 8 unit squares per row D. 12 unit squares per row
- 5) Three identical pizzas are divided. Pizza 1 has 2 parts shaded out of 3. Pizza 2 has 4 parts shaded out of 6. Pizza 3 has 3 parts shaded out of 4. Which two are equivalent?
- A. None are equivalent C. Pizza 1 and Pizza 3
 B. Pizza 2 and Pizza 3 D. Pizza 1 and Pizza 2
- 6) Which fraction is equivalent to $\frac{3}{4}$?
- A. $\frac{3}{8}$ C. $\frac{6}{8}$
 B. $\frac{3}{6}$ D. $\frac{2}{4}$
- 7) Which description does NOT clearly show equal groups for multiplication?
- A. Four groups of three objects each C. Six columns of two dots each
 B. Two rows of nine stars each D. Counting by ones from 0 to 10
- 8) Noah's rectangular bedroom floor is 10 feet long and 8 feet wide. Calculate the area of his bedroom floor.



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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 D is correct.** **(3.NF.A.2)** The line is divided into thirds, so $\frac{1}{4}$ is not a tick mark on this particular number line.
- Choice C is correct.** **(3.MD.B.4)** Less than 4 ounces includes 3 and $3\frac{1}{2}$: that is $2 + 4 = 6$ rocks.
- Choice C is correct.** **(3.NBT.A.3)** 8 rows of 30 seats = $8 \times 30 = 240$ seats. Multiply $8 \times 3 = 24$, then add one zero.
- Choice C is correct.** **(3.MD.A.1)** $4 : 07 + 18 \text{ min} = 4 : 25 \text{ PM}$.
- Choice C is correct.** **(3.NF.A.3c)** $\frac{2}{1}$ means 2 wholes. The picture shows two complete shaded circles.
- 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.
- Choice C is correct.** **(3.OA.D.9)** All products are even because one of the factors is even (2, 4, or 6). Even times any number is even.
- Choice D is correct.** **(3.OA.B.5)** The distributive property lets us break apart a sum. Here, $7 \times (5 + 2)$ is distributed to $7 \times 5 + 7 \times 2 = 35 + 14 = 49$.
- Choice B is correct.** **(3.NF.A.2b)** $\frac{5}{6}$ means $5 \times \frac{1}{6}$, so there are 5 equal steps from 0. Distractor A: distance to 1 is $\frac{1}{6}$, which is 1 part, not 1 tick per se (ambiguous). Distractor C: false; $\frac{5}{6}$ is much closer to 1. Distractor D: false; it is at the 5th tick.
- The correct answer is $3 \times 6 = 18$.** **(3.OA.A.1)** Students may also write $6 \times 3 = 18$ because the same array can be counted by rows or by columns.
- Choice A is correct.** **(3.G.A.2)** One shaded column out of four equal columns is $\frac{1}{4}$.
- 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 A is correct.** **(3.MD.C.7d)** Top rectangle: $5 \times 4 = 20$ sq ft. Bottom rectangle: $3 \times 2 = 6$ sq ft. Total: $20 + 6 = 26$ sq ft.
- Choice D is correct.** **(3.OA.A.2)** Putting items into bags of a fixed size is measurement division: How many bags of 6 fit in 18? $18 \div 6 = 3$.
- Choice B is correct.** **(3.MD.A.2)** Half of 300 mL is $300 \div 2 = 150$ mL.
- Choices A and C are correct.** **(3.MD.C.7c)** A and C are both correct: they show the total area of 36 using the distributive property. B is false because $3 \times 8 = 24$, not 25. D is false because the rectangles share the dimension 3. E is false because $3 \times 13 = 39$.
- Choice B is correct.** **(3.MD.C.5)** Multiply length by width: $8 \times 6 = 48$ square meters.
- Choice C is correct.** **(3.NF.A.3b)** Both bars show the same shaded length. When you split each half into 2 equal parts, 1 half becomes 2 fourths. So $\frac{1}{2} = \frac{2}{4}$.
- Choice D is correct.** **(3.NBT.A.1)** The ones digit is 2. Since $2 < 5$, round down: 92 rounds to 90.
- Choice B is correct.** **(3.MD.C.5a)** A 6×1 grid contains exactly 6 unit squares arranged in a row.
- Choice A is correct.** **(3.NF.A.3)** $\frac{2}{6}$ and $\frac{1}{3}$ show the same shaded amount. They are equivalent.
- Choice B is correct.** **(3.MD.C.7)** Area = $5 \times 2 = 10$ square meters. This is 5 rows of 2 unit squares (or $2+2+2+2+2 = 10$).
- Choice D is correct.** **(3.MD.C.6)** Area = $7 \times 5 = 35$ square inches.
- Choice B is correct.** **(3.MD.C.5b)** The vertical part has 3 unit squares. The horizontal part has 2 more unit squares. Total: $3 + 2 = 5$ unit squares cover this L-shaped figure.
- Choice A is correct.** **(3.NBT.A.2)** Ones: $6 + 4 = 10$ (write 0, carry 1). Tens: $1 + 8 + 1 = 10$ (write 0, carry 1). Hundreds: $2 + 3 + 1 = 6$. Answer: 600.
- The correct answer is 6.** **(3.NF.A.3a)** The denominator doubles, so the numerator doubles: $3 \times 2 = 6$.
- Choice B is correct.** **(3.MD.B.3)** First bar: $4 \times 5 = 20$. Second bar: $2 \times 5 = 10$. Difference: $20 - 10 = 10$.
- Choice D is correct.** **(3.MD.C.7a)** $3 \times 7 = 21$ square units. C is sum error.
- The correct answer is 5.** **(3.OA.A.4)** Divide: $40 \div 8 = 5$ pencils per student.



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Trail Guide's Final Note

Hi, Brave Trail-Walker!

◇ You walked all 4 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

Guide's tip: on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

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

Jay Daie

Your Math Trail Guide

Build Skills. Achieve More.

This book gives **Grade 3** students the focused practice they need to master math concepts with confidence.

What's Inside?



Standards-Aligned Practice

Questions designed to match Grade 3 math standards.



Variety of Question Types

Build skills with multiple formats and challenges.



Real-World Applications

Engaging problems that connect math to life.



Step-by-Step Progress

Track improvement and see growth over time.



Build Skills & Boost Confidence

Strengthen understanding and perform better.

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!



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& Practice Materials

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