

# 9

# Michigan MSTEP

GRADE 4

# MATH

PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



**9 FULL-LENGTH  
PRACTICE TESTS**



**STANDARDS-ALIGNED  
REVIEW**



**MIXED PRACTICE  
BUILD SKILLS & CONFIDENCE**



**ANSWER KEY  
FOR ALL TESTS**



$$\frac{3}{4} + \frac{1}{4} = 1$$



$$725 - 358 = 367$$

PREPARE  
**PRACTICE**  
SUCCEED  
PERFORM

**PRACTICE TODAY.  
SUCCEED TOMORROW.**

# 9 Michigan M-STEP Grade 4 Math Practice Tests

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



Nine complete 30-question Grade 4 practice rounds for M-STEP, built around Great Lakes shorelines, forest roads, and reliable checking, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, Michigan Math Explorer!

Nine steady rounds on the Great Lakes math route

This book gives you nine full Grade 4 practice tests for M-STEP. Each round uses Great Lakes shorelines, forest roads, and reliable checking to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## Michigan Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

## How to Use This Book

A ten-session routine for Michigan M-STEP review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Great Lakes math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Nine tests, 270 questions, and a full M-STEP review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



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1) Which option shows TWO different decompositions that both equal  $\frac{10}{12}$ ?

A.  $\frac{6}{12} + \frac{4}{12}$  and  $\frac{5}{12} + \frac{5}{12}$

C.  $\frac{4}{12} + \frac{4}{12} + \frac{2}{12}$  and  $\frac{6}{12} + \frac{5}{12}$

B.  $\frac{7}{12} + \frac{3}{12}$  and  $\frac{8}{12} + \frac{3}{12}$

D.  $\frac{9}{12} + \frac{2}{12}$  and  $\frac{3}{12} + \frac{6}{12}$

2) What angle does the minute hand sweep in 30 minutes?

A.  $90^\circ$

C.  $180^\circ$

B.  $120^\circ$

D.  $270^\circ$

3) A bakery bakes 3 batches of rolls. Each batch makes 28 rolls. The rolls go into boxes of 8. How many complete boxes can they fill?

4) Which diagram shows a right angle?

A.



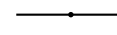
B.



C.



D.



A. Diagram A

C. Diagram C

B. Diagram B

D. Diagram D

5) Three angles meet at a point. The first angle measures  $55^\circ$  and the second angle measures  $40^\circ$ . If all three angles together form a straight angle of  $180^\circ$ , what is the measure of the third angle?

A.  $95^\circ$

C.  $15^\circ$

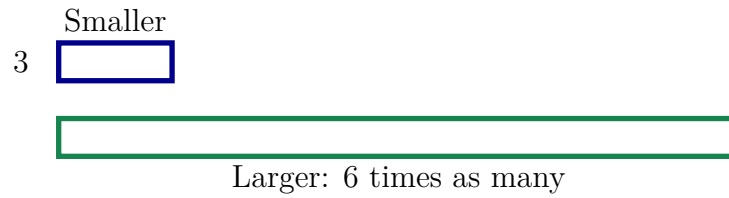
B.  $85^\circ$

D.  $110^\circ$



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6) Look at the bar model. What is the larger amount?



The smaller bar is 3. The larger bar is 6 times as many. What is the larger amount?

- A. 3                                       C. 6  
 B. 9                                       D. 18

7) Which number has a 9 in the hundreds place?

- A. 9,234                                   C. 2,019  
 B. 3,590                                   D. 1,945

8) Calculate  $4 \times \frac{2}{3}$  as a mixed number.

9) Round 23,562 to the nearest thousand.

- A. 23,000                                   C. 23,600  
 B. 20,000                                   D. 24,000



10) A container holds 2 kilograms of rice. How much rice is in 7 identical containers?

- A. 5 kg                                       C. 14 kg  
 B. 9 kg                                       D. 12 kg

11) 3 times 

10
----

?
---

A garden has 10 rose bushes. A park has 3 times as many rose bushes. How many rose bushes does the park have?

- A. 13                                       C. 30  
 B. 27                                       D. 35
- 12) A triangle has three angles that are all less than 90 degrees. What type of triangle is it?

- A. Obtuse triangle                       C. Right triangle  
 B. Acute triangle                         D. Isosceles triangle

13) Which number is divisible by 2?

- A. 47                                       C. 63  
 B. 71                                       D. 52

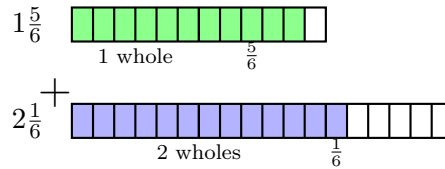
14) Which numeral represents “five thousand, two hundred thirty-four”?

- A. 52,340                                 C. 523,400  
 B. 5,324                                  D. 5,234



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1)



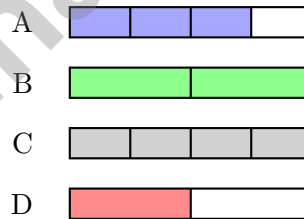
What is the sum shown by the bar diagrams?

- A.  $3\frac{4}{6}$
- C.  $3\frac{3}{6}$
- B.  $3\frac{5}{6}$
- D. 4

2) Diego buys 5 packs of pens. Each pack has 6 pens. He also has 4 old pens. How many pens does he have altogether?

- A. 30
- C. 34
- B. 24
- D. 15

3) Which picture shows  $\frac{3}{4}$  as a sum of unit fractions?



- A. 3 of 4 parts
- C. 4 of 4 parts
- B. 2 of 2 parts
- D. 1 of 2 parts



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4) A rectangular poster is 16 inches long and 10 inches wide. What is the area of the poster?

A. 26 sq in

B. 52 sq in

C. 160 sq in

D. 180 sq in

5) Mia weighs 42 pounds. Her dog weighs 18 pounds. How much more does Mia weigh than her dog?

A. 24 pounds

B. 60 pounds

C. 18 pounds

D. 42 pounds

6) How many unit fractions  $\frac{1}{4}$  are needed to make  $\frac{3}{4}$ ?

A. 1

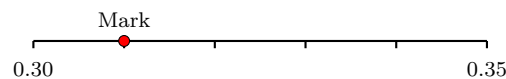
B. 2

C. 3

D. 4

7) A recipe for cookies uses  $\frac{2}{5}$  cup of chocolate chips. If you triple the recipe, how many cups of chocolate chips do you need?

8) Number line with decimals between two tenths marked.



What decimal is marked?

A. 0.31

B. 0.13

C. 0.3

D. 0.41



1) How many degrees larger is  $145^\circ$  than  $55^\circ$ ?

2) Three students timed their sprints. Riley: 0.47 seconds. Jordan: 0.74 seconds. Casey: 0.44 seconds. Who was fastest (smallest time)?

A. Riley (0.47 s)

C. Casey (0.44 s)

B. Jordan (0.74 s)

D. Riley and Jordan tied

3) Using partial quotients to divide  $1,632 \div 4$ , which step correctly shows the next quotient?

$$1,632 \div 4:$$

$$\text{Step 1: } 1,632 - (4 \times 400) = 32$$

$$\text{Step 2: } 32 \div 4 = 8$$

$$\text{Step 3: } 400 + 8 = ?$$



Quotient: ?

A. The quotient is 500

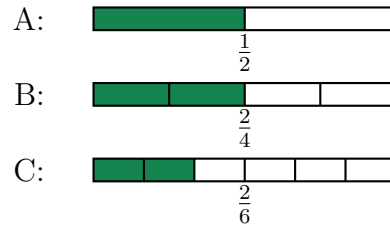
C. The quotient is 380

B. The quotient is 492

D. The quotient is 408



4) Three fraction bars are shown below. Two are equivalent. Which one is NOT equivalent to the others?



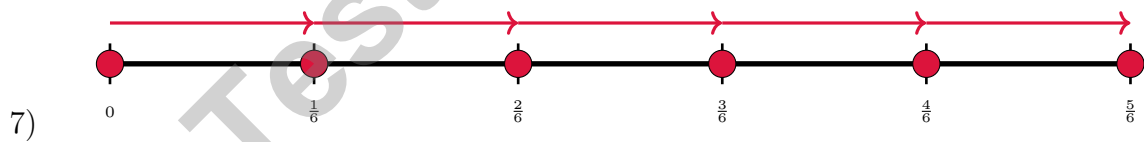
- A. A  C. C  
 B. B  D. Cannot tell from the bars

5) Ava drinks  $\frac{1}{4}$  cup of juice 4 times a day. How much juice does she drink altogether?

- A.  $\frac{4}{4}$  cup or 1 cup  C.  $\frac{4}{1}$  cup  
 B.  $\frac{1}{16}$  cup  D.  $\frac{2}{4}$  cup

6)  $\frac{7}{6}$  equals  $1\frac{1}{6}$ . Which decomposition shows this?

- A.  $\frac{6}{6} + \frac{1}{6}$   C.  $\frac{3}{6} + \frac{3}{6}$   
 B.  $\frac{5}{6} + \frac{1}{6}$   D.  $\frac{1}{6} + \frac{7}{6}$



The number line shows 5 jumps of  $\frac{1}{6}$ . Which equation matches this?

- A.  $5 \times \frac{1}{6} = \frac{4}{6}$   C.  $5 \times \frac{6}{1} = 30$   
 B.  $5 \times \frac{1}{6} = \frac{5}{6}$   D.  $\frac{5}{1} = 5$



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## Practice Test Answer Keys

**How to use this section with a Grade 4 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

- 1) **Choice A is correct.** (4.NF.B.3) Check both decompositions in choice A by adding numerators. First way:  $6 + 4 = 10$ , so  $\frac{6}{12} + \frac{4}{12} = \frac{10}{12}$  ✓. Second way:  $5 + 5 = 10$ , so  $\frac{5}{12} + \frac{5}{12} = \frac{10}{12}$  ✓. Both ways break  $\frac{10}{12}$  apart differently but equal the same total. *Why other options fail:* B's second pair sums to  $11/12$ ; C's second sum is  $11/12$ ; D's second sum is only  $9/12$ .
- 2) **Choice C is correct.** (4.MD.C.5) In 30 minutes, the minute hand moves from 12 to 6 (a half turn), sweeping  $180^\circ$ .
- 3) **The correct answer is 10.** (4.OA.A.3) Two steps! Step 1: total rolls:  $3 \times 28 = 84$  rolls. Step 2: pack into boxes of 8:  $84 \div 8 = 10$  remainder 4. The 4 extra rolls don't fill a box, so they fill **10** complete boxes.
- 4) **Choice A is correct.** (4.G.A.1) Look for the small square symbol in the corner — that's geometry's way of saying "this is a right angle!" Only Diagram A has that special marker.
- 5) **Choice B is correct.** (4.MD.C.7) Add the two known angles first:  $55^\circ + 40^\circ = 95^\circ$ . Then subtract from the straight angle:  $180^\circ - 95^\circ = 85^\circ$ .
- 6) **Choice D is correct.** (4.OA.A.1) The larger bar is 6 times the smaller bar, so we multiply:  $3 \times 6 = 18$ . The larger amount is **18**.
- 7) **Choice D is correct.** (4.NBT.A.1) Check each number: 1,945 has 9 in the hundreds place (worth 900). The other options have 9 in different places. Answer: **1,945**. ✓
- 8) **The correct answer is  $2\frac{2}{3}$ .** (4.NF.B.4) We take 4 copies of  $\frac{2}{3}$ . Multiply:  $4 \times \frac{2}{3} = \frac{4 \times 2}{3} = \frac{8}{3} = 2\frac{2}{3}$ . The answer is  **$2\frac{2}{3}$** .
- 9) **Choice D is correct.** (4.NBT.A.3) We're rounding to the nearest thousand. Look at the hundreds digit: 5. Since  $5 \geq 5$ , we round UP! The thousands digit changes from 3 to 4, giving us **24,000**. ✓
- 10) **Choice C is correct.** (4.MD.A.2) Each container holds 2 kilograms of rice. With 7 containers, multiply:  $2 \times 7 = 14$  kg. The total is **14** kilograms.
- 11) **Choice C is correct.** (4.OA.A.2) The bar model shows the park's bar is 3 equal pieces, each the size of the garden's 10 rose bushes. Multiply:  $3 \times 10 = 30$  rose bushes.
- 12) **Choice B is correct.** (4.G.A.2) An acute triangle is identified by all three angles being less than 90 degrees. When all angles are acute, the triangle itself is classified as acute. The answer is **B**.
- 13) **Choice D is correct.** (4.OA.B.4) Divisibility rule for 2: the last digit must be even (0, 2, 4, 6, 8). 52 ends in 2—even! So  $52 \div 2 = 26$ . The others (47, 63, 71) end in odd digits, so they don't divide evenly by 2.
- 14) **Choice D is correct.** (4.NBT.A.2) Thousands: 5, ones: 234. Combined:  $5,000 + 234 = 5,234$  ✓
- 15) **Choice A is correct.** (4.NF.B.3) Same denominator for subtraction too! Just subtract numerators:  $5 - 2 = 3$ , keep the denominator. Result:  $\frac{3}{6}$ .
- 16) **The correct answer is A, C.** (4.G.A.3) A square balances in four ways: two lines go through opposite corners (diagonals), and two go through the midpoints of opposite sides. Choice A is correct (4 lines). Choice C is correct (lines through side midpoints exist). B is wrong because  $4 \neq 2$ . D is wrong because hexagons have 6, not more than 4. E is wrong because both diagonal lines are lines of symmetry!
- 17) **Choice A is correct.** (4.NBT.B.5) Split by tens:  $16 \times (30 + 5) = 480 + 80 = 560$  trees.
- 18) **Choice B is correct.** (4.NF.B.3) Six unit fractions of  $\frac{1}{6}$  make  $\frac{6}{6}$ , which is one whole. Count: 6 ones make 6 in the numerator.
- 19) **Choice B is correct.** (4.NF.B.4) Ten grains of rice, each weighing  $\frac{1}{12}$  ounce, weigh  $10 \times \frac{1}{12} = \frac{10}{12}$ , which simplifies to  $\frac{5}{6}$  ounce.
- 20) **Choice D is correct.** (4.NBT.B.6) Divide:  $15 \div 7 = 2$  r1, bring down the 1 to get  $11 \div 7 = 1$  r4, bring down the 2 to get  $42 \div 7 = 6$ . Each charity receives **\$216**.
- 21) **Choice B is correct.** (4.NF.B.4) The numerator 7 tells us we have 7 copies of the unit fraction. The denominator 10 tells us the unit fraction is  $\frac{1}{10}$ . So  $\frac{7}{10} = 7 \times \frac{1}{10}$ .
- 22) **Choice B is correct.** (4.MD.C.5) The angle reaches  $20^\circ$  on the degree scale, so it is made of **20** one-degree angles.
- 23) **Choice D is correct.** (4.OA.B.4) Look at the differences: 3, 5, 7. The differences increase by 2 each time, so the next difference is 9:  $17 + 9 = 26$ .
- 24) **Choice D is correct.** (4.NF.A.1) Divide both numerator and denominator by 4:  $\frac{12}{16} = \frac{12 \div 4}{16 \div 4} = \frac{3}{4}$ .



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## Hi, Brave Explorer!

◇ What a trip! You explored 9 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 9 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

# PRACTICE TODAY. ACHIEVE TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students strengthen essential math skills, build confidence, and develop the problem-solving abilities needed for classroom success and test readiness.

With 9 full-length practice tests, students gain repeated exposure to important Grade 4 concepts while learning how to approach questions with accuracy, confidence, and strong mathematical thinking.

Whether used at home, in the classroom, or for independent review, this book provides meaningful practice that helps students grow stronger with every test.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement

★ CONFIDENCE IN MATH.  
SUCCESS FOR LIFE.

## WHAT STUDENTS WILL GAIN



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Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Test Confidence

Become familiar with test-style questions and formats.



### Track Progress

Measure growth across multiple practice tests.



### Academic Success

Strengthen skills needed for future learning.

## TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Multi-Digit Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
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- ✓ Perimeter & Area
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- ✓ And More!



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Strengthens Critical Thinking & Problem Solving



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Prepares Students for Future Success