

8 Michigan M STEP GRADE 4



PRACTICE TESTS



Standards-Aligned Review with
Mixed Practice and Answer Key

**COMPREHENSIVE
TEST PREP**

Includes Solutions

8 Michigan M-STEP Grade 4 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Eight 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!

Eight steady rounds on the Great Lakes math route

This book gives you eight 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?

Eight tests, 240 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 6–8	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.

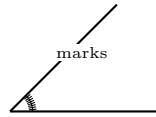


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1)



The angle opens from 0° to 45° . What is its measure?

- A. 45°
 C. 46°
 B. 50°
 D. 90°

2) Noah had $3\frac{2}{6}$ meters of string. He added $1\frac{4}{6}$ meters more. How long is the string now?

- A. $4\frac{1}{6}$ meters
 C. 5 meters
 B. $4\frac{5}{6}$ meters
 D. $5\frac{1}{6}$ meters

3) Sam has a rectangular sheet of paper. It is 11 inches long and 9 inches wide. What is its area?

- A. 20 sq in
 C. 99 sq in
 B. 40 sq in
 D. 110 sq in

4)



water left removed
 $\frac{3}{5}$ filled, then $\frac{1}{5}$ removed

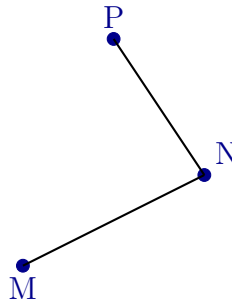
A container divided into 5 equal parts is $\frac{3}{5}$ filled with water. If $\frac{1}{5}$ of the water is removed, what fraction of the container remains filled?

- A. $\frac{1}{5}$
 C. $\frac{4}{5}$
 B. $\frac{2}{5}$
 D. $\frac{3}{5}$



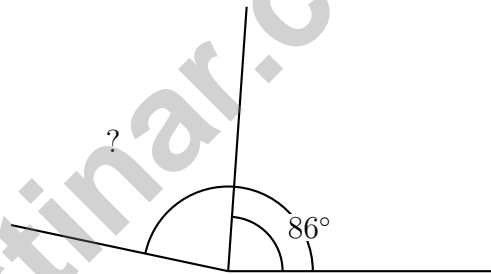
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10) Which points are the endpoints of segment MN in this diagram?



- A. M and N C. M and P
 B. N and P D. All three points

11) A surveyor measures a land angle of 168° . A tree is planted such that it divides the angle into 86° and another part. What is the measure of the other part?



- A. 82° C. 254°
 B. 86° D. 90°

12) A juice bottle contains 2 liters of juice. How many milliliters is this?

- A. 20 C. 2,000
 B. 200 D. 20,000



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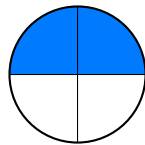
1) Use this place-value chart:

Hundred-Thousands	Ten-Thousands	Thousands	Hundreds	Tens	Ones
4	1	8	5	2	3

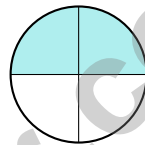
What is the standard numeral?

- A. 418,253 C. 418,352
 B. 481,523 D. 418,523

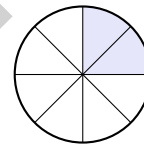
2) Sam shaded $\frac{1}{2}$ of a circle. Which other circle shows an equivalent fraction?



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



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



C: $\frac{2}{8}$

- A. Circle A C. Circle C
 B. Circles B and C D. Circle B

3) Which expression shows $\frac{3}{5}$ as a sum of unit fractions?

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

4) Which shows a sum greater than 1?

- A. $\frac{5}{8} + \frac{4}{8}$ C. $\frac{4}{8} + \frac{2}{8}$
 B. $\frac{3}{6} + \frac{2}{6}$ D. $\frac{5}{10} + \frac{3}{10}$



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5) Sam has 5 liters of juice. He uses 2 liters to make punch. How many liters of juice does he have left?

A. 2 L

B. 3 L

C. 5 L

D. 7 L

6) Which equation does NOT show a multiplicative comparison?

A. $18 = 3 \times 6$

B. $18 = 12 + 6$

C. $20 = 4 \times 5$

D. $35 = 5 \times 7$

7) Which fraction is greater than 1?

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

B. $\frac{5}{6}$

C. $\frac{5}{4}$

D. $\frac{7}{8}$

8) Diego reads 16 pages of a book each day. If he reads for 5 days, how many pages does he read?

A. 21

B. 110

C. 70

D. 80

9) Round 52,834 to the nearest hundred.

A. 53,000

B. 52,834

C. 52,900

D. 52,800

10) Count the multiples of 8 between 1 and 60 using the table:

8	16	24	32
40	48	56	next is 64

How many multiples of 8 are there up to 60?

A. 6

B. 9

C. 8

D. 7



- 1) Which of these is NOT equivalent to 0.3?
- A. $\frac{3}{10}$ C. $\frac{30}{100}$
 B. 0.30 D. $\frac{3}{100}$
- 2) A juice stand makes 8 pitchers. Each pitcher has 9 cups. They sell 36 cups. How many cups are left?
- A. 28 C. 44
 B. 72 D. 36
- 3) Sam has 4 feet of ribbon. How many inches of ribbon does he have?
- A. 12 C. 36
 B. 24 D. 48
- 4) What is the value of the digit 5 in the number 5,204?
- A. 5 C. 500
 B. 50 D. 5,000
- 5) What is 31×21 ?
- A. 651 C. 551
 B. 341 D. 52
- 6) An angle measuring 112° is separated into two parts. If one part is 63° , what is the measure of the other part?
- A. 49° C. 63°
 B. 175° D. 56°



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

- Choice A is correct.** (4.MD.C.5) Counting the one-degree angle marks from 0° to 45° gives us 45° .
- Choice C is correct.** (4.NF.B.3) Add the wholes: $3 + 1 = 4$. Add the fractions: $\frac{2}{6} + \frac{4}{6} = \frac{6}{6} = 1$. Combine: $4 + 1 = 5$ meters.
- Choice C is correct.** (4.MD.A.3) Paper area = $11 \times 9 = 99$ sq in.
- Choice B is correct.** (4.NF.B.3) The container starts with water shown in the picture. When some water is removed, subtract: $\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$ of the container remains filled.
- Choice D is correct.** (4.OA.A.3) Two steps! Step 1: find the total cookies. 6 batches $\times 25 = 150$ cookies. Step 2: pack into boxes of 8: $150 \div 8 = 18$ remainder 6. The remainder isn't enough to fill another box, so they fill **18** complete boxes.
- Choice B is correct.** (4.NF.B.4) To write $2 \times \frac{1}{3}$ as a fraction, count the copies: we have 2 copies of $\frac{1}{3}$. So the fraction is $\frac{2}{3}$.
- Choice A is correct.** (4.NF.A.1) Find common denominator 120: $\frac{9}{10} = \frac{108}{120}$, $\frac{7}{8} = \frac{105}{120}$, $\frac{5}{6} = \frac{100}{120}$, $\frac{3}{4} = \frac{90}{120}$. Since 108 is closest to 120, $\frac{9}{10}$ is closest to 1.
- The correct answer is $\frac{3}{12}$.** (4.NF.B.3) Divide $\frac{9}{12}$ into three equal parts: each piece is $\frac{3}{12}$. Check: $3 + 3 + 3 = 9$ ✓.
- Choice D is correct.** (4.OA.A.2) We know Jasmine's 20 stickers are 4 times the friend's amount. To find the smaller amount, divide: $20 \div 4 = 5$ stickers.
- Choice A is correct.** (4.G.A.1) When a segment is called MN , that means it starts at M and ends at N — those are the two endpoints. Point P is somewhere else entirely.
- Choice A is correct.** (4.MD.C.7) The tree divides the angle into two parts. Subtract to find the other: $168^\circ - 86^\circ = 82^\circ$.
- Choice C is correct.** (4.MD.A.1) Since 1 liter = 1,000 milliliters, multiply: $2 \times 1,000 = 2,000$ mL. The answer is **2,000** mL.
- Choice D is correct.** (4.NBT.B.6) Use long division step by step: $3 \div 4 = 0$ r3, bring down the 4 to get $34 \div 4 = 8$ r2, bring down the 5 to get $25 \div 4 = 6$ r1, bring down the 6 to get $16 \div 4 = 4$. The quotient is **864**.
- Choice B is correct.** (4.NF.C.5) Add the two decimal parts: 0.2 (two tenths) + 0.09 (nine hundredths) = 0.29.
- The correct answer is A, C.** (4.NF.B.3) Count the unit fractions: five $\frac{1}{8}$'s equal $\frac{5}{8}$ (choice A). Choice C also correctly describes this as "five unit fractions of eighths." Choice B reverses numerator and denominator. Choices D and E use wrong denominators.
- The correct answer is 17.** (4.OA.B.4) Add 3 each time: 2, 5, 8, 11, 14, **17**. Figure 6 has **17** squares.
- Choice B is correct.** (4.NF.B.4) James eats $\frac{1}{8}$ of the pie each day for 5 days. We multiply: $5 \times \frac{1}{8} = \frac{5}{8}$ of the pie.
- Choice A is correct.** (4.NF.A.1) Look at the number line: Point A lands exactly at $\frac{1}{2}$. Point B lands at 1 (or $\frac{4}{4}$), which is a whole, not equivalent to half.
- Choice A is correct.** (4.NF.C.5) From the table: 5 tenths = 0.5 and 8 hundredths = 0.08. Add: $0.5 + 0.08 = 0.58$.
- The correct answer is 0.** (4.MD.C.6) The first step in measuring an angle is to align one ray (the baseline ray) with the 0° mark on the protractor. This is your starting point for reading the second ray. The answer is **0** degrees.
- Choice C is correct.** (4.NF.C.5) To convert $\frac{1}{10}$ to hundredths, multiply both the numerator and denominator by 10: $\frac{1}{10} = \frac{1 \times 10}{10 \times 10} = \frac{10}{100}$.
- Choice C is correct.** (4.OA.B.4) Divisibility rule for 5: the last digit must be 0 or 5. 55 ends in 5—perfect! So $55 \div 5 = 11$. The others end in 3, 2, or 7, so 5 doesn't divide them evenly.
- Choice A is correct.** (4.NBT.B.4) Start in the ones place: $0 < 5$, so regroup one ten as 10 ones. Then subtract from right to left carefully. The answer is **4,835**.
- Choice A is correct.** (4.NBT.A.3) We're rounding to the nearest hundred. Look at the tens digit: 2. Since $2 < 5$, we round DOWN. The hundreds digit stays at 6, so Ava read about **4,600** pages. ✓
- Choice C is correct.** (4.NF.B.4) For $4 \times \frac{2}{3}$, we need 4 bars, each divided into 3 parts with 2 parts shaded in each bar. Picture C shows four bars with two-thirds shaded in each. The answer is Picture C.
- Choice C is correct.** (4.NBT.B.5) Check each product: A: 280, B: 400, C: $18 \times 20 = 360$, D: 480. Only 360 is between 300 and 400.



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Lab Notes for a Young Scientist

Hi, Curious Scientist!

◇ 8 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

Scientist tip: on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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

Jay Daie

Your Math Scientist

8 PRACTICE TESTS. PREPARE. PRACTICE. SUCCEED!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, master essential concepts, and boost confidence for success in the classroom and beyond.

Featuring 8 full-length practice tests, a variety of question types, and detailed answer explanations, this book provides the practice and support students need to improve accuracy, strengthen problem-solving abilities, and achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

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- ✓ Skill Reinforcement

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Test Confidence

Become familiar with test-style questions and formats.



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Measure growth across multiple practice tests.



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TOPICS COVERED

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- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
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- ✓ Measurement & Data
- ✓ Perimeter & Area
- ✓ Word Problems
- ✓ Patterns & Algebraic Thinking
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