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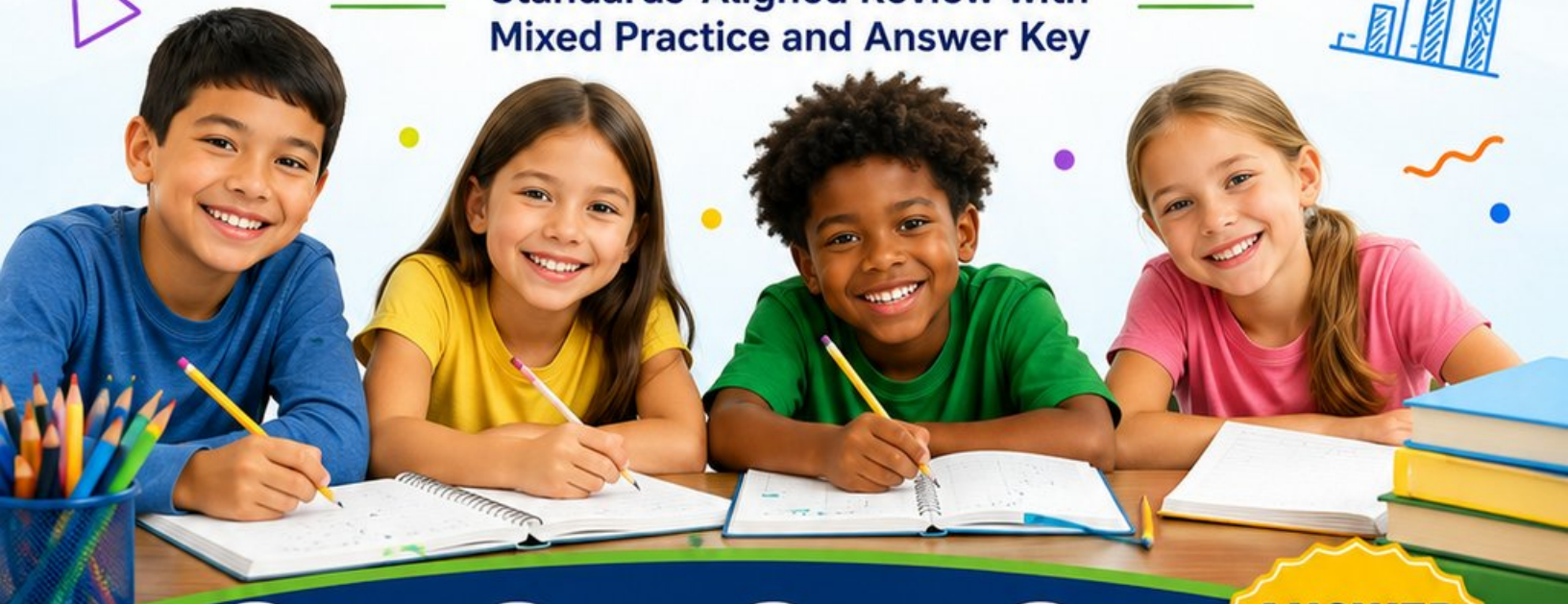
Massachusetts

MCAS

GRADE 4 MATH

PRACTICE TESTS

Standards-Aligned Review with
Mixed Practice and Answer Key



$$\begin{array}{r} 25 \\ +37 \\ \hline 62 \end{array}$$

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



7 Full-Length
Practice Tests



Standards-
Aligned



Build Confidence
and Skills



Mixed Question
Types

**ANSWER
KEY**

INCLUDED

7 Massachusetts MCAS Grade 4 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Seven complete 30-question Grade 4 practice rounds for MCAS, built around historic streets, harbor winds, and precise explanations, with answer keys and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Massachusetts Math Explorer!

Seven steady rounds on the Bay State math route

This book gives you seven full Grade 4 practice tests for MCAS. Each round uses historic streets, harbor winds, and precise explanations to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

Massachusetts 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 Massachusetts MCAS 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 Bay State 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?

Seven tests, 210 questions, and a full MCAS 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 5–7	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.

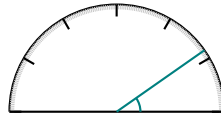


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& answers

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1)



What is the measure of the angle shown?

- A. 30 degrees C. 45 degrees
 B. 40 degrees D. 35 degrees

2) Which two fractions are both equivalent to $\frac{1}{5}$?

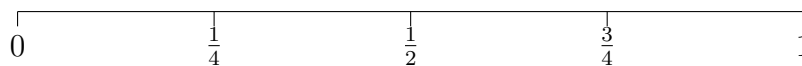
- A. $\frac{2}{10}$ and $\frac{20}{100}$ C. $\frac{2}{10}$ and $\frac{30}{100}$
 B. $\frac{3}{10}$ and $\frac{30}{100}$ D. $\frac{1}{10}$ and $\frac{10}{100}$

3) How many sides does an angle have?

4) A line plot shows leaf lengths in halves of an inch: $\frac{1}{2}$, $\frac{1}{2}$, 1, $\frac{1}{2}$, 1, 1. How many leaves measured 1 inch?

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

5) On a number line from 0 to 1, where does $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ land?



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



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6) Find $8 \times \frac{2}{3}$ as a mixed number.

7) What is $\frac{3}{10} + \frac{20}{100} + \frac{5}{100}$?

A. $\frac{28}{110}$

B. $\frac{55}{100}$

C. $\frac{28}{100}$

D. $\frac{55}{110}$

8) Which number rounds to 5,000 when rounded to the nearest thousand?

A. 4,499

B. 4,449

C. 5,550

D. 5,450

9) Noah wrote three numbers: 2,500, 3,450, and 1,725. In which number is the value of the hundreds digit the greatest?

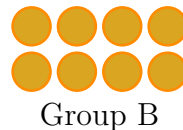
A. 2,500

B. 3,450

C. 1,725

D. All three are equal

10) How many times as many counters are in Group B as in Group A?



A. 2 times as many

B. 8 times as many

C. 6 times as many

D. 4 times as many



- 11) Which attribute is true for a square?
- A. Four equal sides and four right angles
- B. Three angles and three sides
- C. One pair of parallel sides
- D. Four different side lengths
- 12) What is $6\frac{1}{5} + 2\frac{3}{5}$?
- A. $8\frac{2}{5}$
- B. $8\frac{3}{5}$
- C. $8\frac{4}{5}$
- D. $9\frac{1}{5}$
- 13) Carmen ate $\frac{3}{8}$ of a pizza. Her brother ate $\frac{2}{8}$ of the same pizza. What fraction of the pizza did they eat altogether?
- A. $\frac{1}{8}$
- B. $\frac{5}{8}$
- C. $\frac{6}{8}$
- D. $\frac{5}{16}$
- 14) Order from greatest to least: $\frac{2}{4}, \frac{3}{6}, \frac{5}{10}$.
- A. All are equal
- B. $\frac{2}{4} > \frac{3}{6} > \frac{5}{10}$
- C. $\frac{5}{10} > \frac{3}{6} > \frac{2}{4}$
- D. $\frac{3}{6} > \frac{2}{4} > \frac{5}{10}$
- 15) An angle measuring 112° is separated into two parts. If one part is 63° , what is the measure of the other part?
- A. 49°
- B. 175°
- C. 63°
- D. 56°
- 16) Select the TWO expressions that equal $\frac{50}{100}$.
- A. 0.50
- B. 0.05
- C. $\frac{50}{1000}$
- D. $\frac{5}{100}$
- E. 0.5



1) A rectangle has a length of 12 m and a width of 7 m. What is its perimeter?

A. 19 m

C. 84 m

B. 38 m

D. 76 m

2) Which comparison is correct?

A. $\frac{2}{3} > \frac{2}{5}$

C. $\frac{2}{3} = \frac{2}{5}$

B. $\frac{2}{3} < \frac{2}{5}$

D. $\frac{2}{5} > \frac{2}{3}$

3) In the number 5,059, how many times greater is the value of the digit 5 in the thousands place than the digit 5 in the ones place?

A. 10 times

C. 1,000 times

B. 100 times

D. 5 times

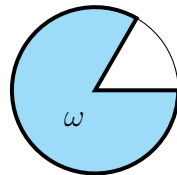
4) Mia mixed $2\frac{1}{3}$ cups of flour with $1\frac{1}{3}$ cups of sugar. What is the total amount?

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

C. 4 cups

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

D. $2\frac{2}{3}$ cups



5)

The unshaded (white) sector from the diagram measures 60° . What is the measure of the shaded angle ω ?

A. 240°

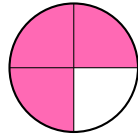
C. 300°

B. 270°

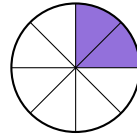
D. 330°



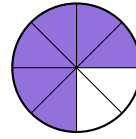
6) Mia shaded $\frac{3}{4}$ of a circle. Which circle shows an equivalent amount shaded?



Mia: $\frac{3}{4}$



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



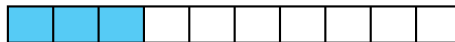
B: $\frac{6}{8}$

- A. Circle A
 C. Circles A and B
 B. None of them
 D. Circle B
- 7) A pitcher holds 64 fluid ounces. How many pints is this?
- A. 2
 C. 8
 B. 4
 D. 16
- 8) A printing company prints 5 sets of pamphlets. Each set has 48 pages. Another company prints 3 sets with 65 pages each. Which company prints more pages, and by how many?
- A. First company by 15 pages
 C. Second company by 15 pages
 B. Equal pages
 D. First company by 45 pages
- 9) A student walks $\frac{6}{8}$ of a mile. How many eighths of a mile is that?
- A. 6 eighths
 C. 2 eighths
 B. 8 eighths
 D. 14 eighths
- 10) Which statement correctly matches the equation $42 = 6 \times 7$?
- A. 42 is 6 less than 7
 C. 42 is 6 times as many as 7
 B. 42 is 7 more than 6
 D. 42 equals 6 plus 7



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- 1) A toy donation has 35 toy cars and 28 toy trucks. They lose 6 items. The remaining items are donated to 3 shelters equally. How many items does each shelter receive?
- A. 18 items C. 20 items
 B. 21 items D. 19 items
- 2) A rectangular table is 5 feet long and 3 feet wide. What is the perimeter of the table?
- A. 8 ft C. 16 ft
 B. 15 ft D. 30 ft
- 3) Which fraction equals $6 \times \frac{1}{8}$?
- A. $\frac{1}{8}$ C. $\frac{6}{48}$
 B. $\frac{6}{8}$ D. $\frac{1}{48}$
- 4) Marcus buys 4 containers of yogurt. Each container has $\frac{2}{5}$ pound. What is the total weight?
- A. $\frac{2}{20}$ pounds C. $\frac{4}{2}$ pounds
 B. $\frac{6}{5}$ pounds D. $\frac{8}{5}$ pounds or $1\frac{3}{5}$ pounds
- 5) A water jug is $\frac{8}{10}$ full. After pouring a drink, it is $\frac{3}{10}$ full. How much water was poured out?



Remaining: $\frac{3}{10}$ full
 Started with $\frac{8}{10}$; poured out ?

- A. $\frac{5}{20}$ of the jug C. $\frac{11}{10}$ of the jug
 B. $\frac{5}{10}$ of the jug D. $\frac{2}{10}$ of the jug



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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 D is correct.** **(4.MD.C.6)** The ray aligns perfectly with the 35° mark. Since $35^\circ < 90^\circ$, this is a small acute angle. The answer is **35** degrees.
- 2) **Choice A is correct.** **(4.NF.A.1)** Multiply both numerator and denominator by 2 to get tenths: $\frac{1}{5} = \frac{1 \times 2}{5 \times 2} = \frac{2}{10}$. Then multiply by 20 to get hundredths: $\frac{1}{5} = \frac{1 \times 20}{5 \times 20} = \frac{20}{100}$.
- 3) **The correct answer is 2.** **(4.MD.C.5)** An angle is formed by **2** rays.
- 4) **Choice C is correct.** **(4.MD.B.4)** Count how many leaves measured 1 inch (which is the same as $\frac{2}{2}$ inch). We find **3** leaves with this length.
- 5) **Choice C is correct.** **(4.NF.B.3)** Start at 0 and make three jumps of $\frac{1}{4}$ each. After three jumps: $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$.
- 6) **The correct answer is $5\frac{1}{3}$.** **(4.NF.B.4)** We take 8 copies of $\frac{2}{3}$. Multiply: $8 \times \frac{2}{3} = \frac{8 \times 2}{3} = \frac{16}{3} = 5\frac{1}{3}$. The answer is **$5\frac{1}{3}$** .
- 7) **Choice B is correct.** **(4.NF.C.5)** First, convert $\frac{3}{10}$ to hundredths: $\frac{3}{10} = \frac{30}{100}$. Now add all three fractions: $\frac{30}{100} + \frac{20}{100} + \frac{5}{100} = \frac{55}{100}$.
- 8) **Choice D is correct.** **(4.NBT.A.3)** To round to the nearest thousand, check the hundreds digit in 5,450: it's 4. Since $4 < 5$, we round **DOWN** to **5,000**. ✓
- 9) **Choice C is correct.** **(4.NBT.A.1)** Compare the hundreds-place values: 2,500 has $5 \times 100 = 500$; 3,450 has $4 \times 100 = 400$; 1,725 has $7 \times 100 = 700$. The greatest is **1,725** with 700. ✓
- 10) **Choice D is correct.** **(4.OA.A.1)** To find "how many times," divide the larger group by the smaller: $8 \div 2 = 4$. So Group B has **4** times as many counters as Group A.
- 11) **Choice A is correct.** **(4.G.A.2)** A square has two essential properties: four sides of equal length and four right angles at each corner. This combination of properties is unique to squares. The answer is **A**.
- 12) **Choice C is correct.** **(4.NF.B.3)** Add the wholes: $6 + 2 = 8$. Add the fractions: $\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$. The sum is **$8\frac{4}{5}$** .
- 13) **Choice B is correct.** **(4.NF.B.3)** They both ate pieces from the same pizza! Add them with like denominators: $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ of the pizza altogether.
- 14) **Choice A is correct.** **(4.NF.A.1)** All three simplify to $\frac{1}{2}$: $\frac{2}{4} = \frac{1}{2}$, $\frac{3}{6} = \frac{1}{2}$, $\frac{5}{10} = \frac{1}{2}$. They're all equal!
- 15) **Choice A is correct.** **(4.MD.C.7)** To find the missing part, subtract what you know from the whole: $112^\circ - 63^\circ = \mathbf{49^\circ}$.
- 16) **The correct answer is A, E.** **(4.NF.C.5)** Option A: $\frac{50}{100} = 0.50$. Option E: $\frac{50}{100} = 0.5$ (trailing zero doesn't change the value). The other options equal 0.05, not 0.50.
- 17) **Choice D is correct.** **(4.OA.A.3)** Two parts! First: $144 \div 12 = 12$ full crates. Then the 9 extra toys won't fill a crate but still need one—so we round up: $12 + 1 = 13$ crates total.
- 18) **Choice D is correct.** **(4.NBT.B.5)** Use the distributive property: $29 \times (10 + 2) = 290 + 58 = \mathbf{348}$.
- 19) **The correct answer is $\frac{15}{4}$.** **(4.NF.B.4)** Filling 5 water bottles, each holding $\frac{3}{4}$ liter, gives us $5 \times \frac{3}{4} = \frac{15}{4}$ liters total.
- 20) **Choice B is correct.** **(4.G.A.3)** The letter Y has two equal arms at the top that open symmetrically. A vertical line down the middle divides it into matching left and right halves. The answer is **1** line of symmetry.
- 21) **Choice D is correct.** **(4.OA.A.2)** "2 times as many" means multiply by 2: $2 \times 100 = 200$ action figures.
- 22) **Choice B is correct.** **(4.NF.B.4)** Six thirds means $6 \times \frac{1}{3} = \frac{6}{3}$. Since $\frac{6}{3}$ is our answer, that's **$\frac{6}{3}$** .
- 23) **Choice D is correct.** **(4.NBT.B.4)** Add from right to left: ones $4 + 5 = 9$, tens $3 + 4 = 7$, hundreds $2 + 1 = 3$, thousands $5 + 2 = 7$. The sum is **7,379**.
- 24) **Choice D is correct.** **(4.NBT.A.2)** Thousands: 307, ones: 4. Combined: $307,000 + 4 = 307,004$ ✓
- 25) **Choice B is correct.** **(4.NF.B.3)** Same denominator rule: $7 + 2 = 9$ twelfths. Answer: **$\frac{9}{12}$** .
- 26) **Choice A is correct.** **(4.NBT.B.6)** Divide: $9 \div 9 = 1$, bring down the 3 to get $3 \div 9 = 0$ r3, bring down the 6 to get $36 \div 9 = 4$. Ming makes **104** full bags.
- 27) **Choice D is correct.** **(4.OA.B.4)** Subtract 6 each time: 80, 74, 68, **62**. The 4th term is **62**.
- 28) **Choice B is correct.** **(4.MD.A.3)** From the grid: 8 units long and 4 units wide. Perimeter = $2(8) + 2(4) = 16 + 8 = 24$ units.



A Note From Your Math Friend

Hi, Math Star!

◇ Wow! You finished 7 full practice tests. That is a LOT of math problems. You worked hard, and your brain got stronger every time. ◇

★ **Here is a big idea:** mistakes are okay! Every time you got something wrong, you got smarter. Through 7 tests, you learned that trying is the most important thing. ★

Look What You Did!

- **Hard Worker:** You did not give up!
- **Smart Thinker:** You used your math tools.
- **Brave Learner:** You tried hard problems.
- **Test Ready:** You feel proud and prepared.

Big tip for test day: take your time. Read each problem twice. Show your work. Check your answer. You can do this!

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

Jay Daie

Your Math Friend

7 FULL-LENGTH TESTS TO MASTER GRADE 4 MATH!

This **Grade 4 Math Practice Tests** book provides the practice your child needs to build strong math skills, understand key concepts, and gain the confidence to succeed on every test.

With 7 full-length practice tests, a wide range of question types, and detailed answer explanations, students will improve accuracy, strengthen problem-solving abilities, and prepare for classroom success and beyond.



PERFECT FOR:

- ✓ Classroom Practice
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- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Confidence Building
- ✓ Skill Reinforcement

★ CONFIDENCE IN MATH.
SUCCESS FOR LIFE.

WHAT STUDENTS WILL GAIN



Stronger Math Skills

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.

$$\begin{array}{r} 45 \\ -17 \\ \hline 28 \end{array}$$



$$7 \times 8 = 56$$

TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Multi-Digit Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
- ✓ Decimals & Comparing Numbers
- ✓ Geometry & Shapes
- ✓ Measurement & Data
- ✓ Perimeter & Area
- ✓ Word Problems
- ✓ Patterns & Algebraic Thinking
- ✓ Graphs & Data Interpretation
- ✓ And More!



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Mixed Question Types



Answer Key Included