

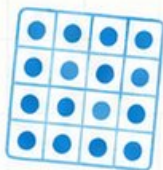
$$\begin{array}{r} 32 \\ \times 6 \\ \hline 192 \end{array}$$

10

$$7 \times 8 = 56$$



$$\frac{3}{4}$$



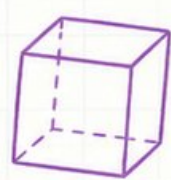
Massachusetts



MCAS



GRADE 4



MATH

PRACTICE TESTS

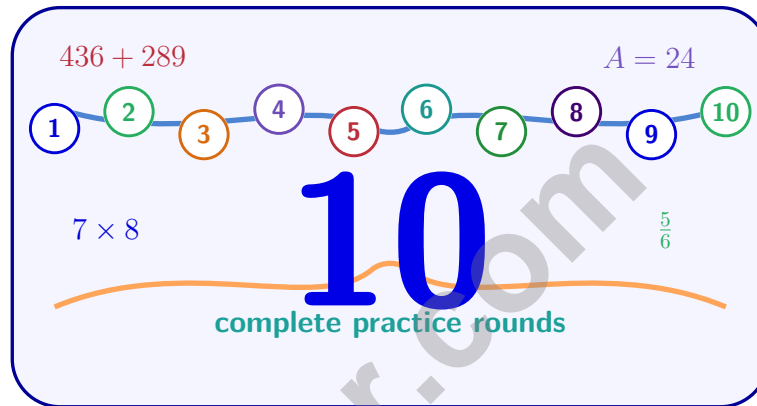


Standards-Aligned Review
with Mixed Practice
and **Answer Key**



10 Massachusetts MCAS Grade 4 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Ten 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!

Ten steady rounds on the Bay State math route

This book gives you ten 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?

Ten tests, 300 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 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Test 10	Final round to show growth across the whole Massachusetts book.
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.



Scan me!
For more practice
& answers

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1) A regular polygon has 4 lines of symmetry. How many sides does it have?

2) What is $7\frac{2}{3} - 4\frac{1}{3}$?

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

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

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

D. $4\frac{1}{3}$

3) Which subtraction is correct?

A. $7,123 - 2,456 = 4,667$

B. $7,123 - 2,456 = 5,667$

C. $7,123 - 2,456 = 5,567$

D. $7,123 - 2,456 = 5,777$

4) How many numbers from 20 to 30 are divisible by 2?

A. 4

B. 5

C. 6

D. 7

5) Which fraction is equivalent to $\frac{1}{5}$ and has a denominator of 10?

A. $\frac{1}{10}$

B. $\frac{5}{10}$

C. $\frac{3}{10}$

D. $\frac{2}{10}$

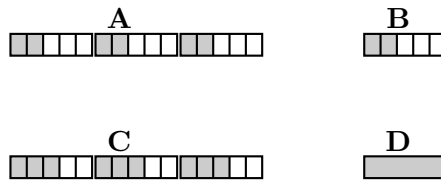


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6) During lunch, the cafeteria used 6 gallons of milk on Monday and 8 gallons on Tuesday. How many gallons did they use in total?

- A. 2 gallons C. 14 gallons
 B. 8 gallons D. 48 gallons

7) Which picture shows $3 \times \frac{2}{5}$?



- A. Top-left picture C. Bottom-left picture
 B. Top-right picture D. Bottom-right picture

8) Which statement matches the equation $12 = 3 \times 4$?

- A. 12 is 4 more than 3 C. 12 plus 3 equals 4
 B. 12 is 3 less than 4 D. 12 is 3 times as many as 4

9) A pie chart shows sections with angles of 90° , 80° , 60° , and 50° . What is the total angle measure of these four sections?

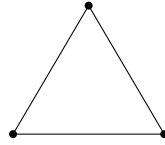
- A. 180° C. 280°
 B. 230° D. 360°

10) What is 33×24 ?

- A. 660 C. 720
 B. 840 D. 792



11) Look at the triangle. Which type is it?



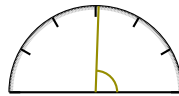
- A. Right triangle C. Acute triangle
 B. Obtuse triangle D. Right obtuse triangle

12) A repeating pattern uses colors: red, blue, green, red, blue, green. What color is the 11th item?

- A. Red C. Green
 B. Yellow D. Blue

13) A baker measured flour scoops in eighths of a cup. The measurements are: $\frac{2}{8}$, $\frac{3}{8}$, $\frac{2}{8}$, $\frac{4}{8}$, $\frac{3}{8}$, $\frac{3}{8}$. Which measurement appears most often?

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



14)

An angle measures 88 degrees. Is it acute or right?

- A. Acute, because 88 is less than 90 degrees C. Neither; it must be obtuse
 B. Right, because 88 is close to 90 degrees D. Right, because right angles are any angle under 100 degrees



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- 1) A runner completes one lap in 3 minutes. How many minutes will it take to complete 9 laps at the same pace?
- A. 12 minutes C. 27 minutes
 B. 18 minutes D. 30 minutes

- 2) Which diagram shows Ray PQ ?

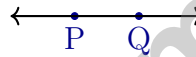
A.



B.



C.



D.



- A. Diagram A C. Diagram C
 B. Diagram B D. Diagram D
- 3) A clothing store received 2,736 buttons in a shipment. They sew an equal number of buttons on 6 different shirts. How many buttons go on each shirt?
- A. 454 C. 456
 B. 444 D. 434
- 4) Hassan ate $\frac{2}{6}$ of a pizza and Iris ate $\frac{1}{3}$ of an identical pizza. Who ate more, or did they eat the same amount?



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- 5) 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?

- 6) A triangle has one right angle. What type of triangle is it?

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

- 7) Write $\frac{47}{100}$ as a decimal.

- A. 0.047 C. 4.7
 B. 0.47 D. 47.0

- 8) Sofia has 7 stickers. Liam has 3 times as many. How many more stickers does Liam have than Sofia?

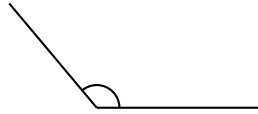
- A. 10 C. 21
 B. 3 D. 14

- 9) What does $\frac{10}{100}$ equal?

- A. $\frac{10}{10}$ C. $\frac{0}{100}$
 B. $\frac{1}{10}$ D. $\frac{100}{100}$



- 1) Use a protractor to measure the angle below. Write the degree measure.



- 2) What is $\frac{2}{5} + \frac{3}{5}$?

A. $\frac{5}{10}$
 B. $\frac{1}{5}$

C. $\frac{5}{5}$ or 1
 D. $\frac{6}{5}$

- 3) What is $2\frac{5}{8} + 1\frac{3}{8}$?

A. $3\frac{6}{8}$
 B. 4

C. $3\frac{7}{8}$
 D. $2\frac{8}{8}$

- 4) In the word form “seventy-eight thousand, four hundred twelve”, which place does the digit 8 occupy?

A. Tens place
 B. Ten-thousands place

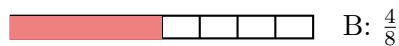
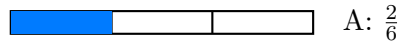
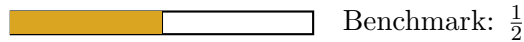
C. Hundreds place
 D. Thousands place



5) The minute hand starts at 12 and moves to 6. How many degrees does it rotate?

- A. 90°
 C. 270°
 B. 180°
 D. 360°

6) Which fraction is equivalent to $\frac{1}{2}$?



- A. $\frac{2}{6}$ is equivalent to $\frac{1}{2}$
 C. Both fractions are equivalent to $\frac{1}{2}$
 B. $\frac{4}{8}$ is equivalent to $\frac{1}{2}$
 D. Neither fraction is equivalent to $\frac{1}{2}$

7) Is 43 prime or composite?

- A. Both
 C. Neither
 B. Composite
 D. Prime

8) On a line plot showing string lengths in fourths, there are 2 X marks at $\frac{1}{4}$ inch, 3 X marks at $\frac{2}{4}$ inch, and 1 X mark at $\frac{3}{4}$ inch. What is the total number of strings?

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

9) A class has 48 students. They are divided into 6 equal teams. How many students are on each team?



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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

- The correct answer is 4.** (4.G.A.3) For any regular polygon, the number of lines of symmetry always equals the number of sides. So if it has 4 symmetry lines, it must have 4 sides (a square).
- Choice A is correct.** (4.NF.B.3) Subtract the wholes: $7 - 4 = 3$. Subtract the fractions: $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$. The difference is $3\frac{1}{3}$.
- Choice A is correct.** (4.NBT.B.4) Subtract carefully with regrouping: $7,123 - 2,456 = 4,667$.
- Choice C is correct.** (4.OA.B.4) List the even numbers from 20 through 30: 20, 22, 24, 26, 28, 30. Count them: 6 numbers. (Even numbers are exactly the ones divisible by 2.)
- Choice D is correct.** (4.NF.A.1) Multiply both numerator and denominator by 2 to get a denominator of 10: $\frac{1}{5} = \frac{1 \times 2}{5 \times 2} = \frac{2}{10}$.
- Choice C is correct.** (4.MD.A.2) The cafeteria used 6 gallons on Monday and 8 gallons on Tuesday. Add them: $6 + 8 = 14$ gallons. They used 14 gallons in total.
- Choice A is correct.** (4.NF.B.4) For $3 \times \frac{2}{5}$, we need 3 bars, each divided into 5 parts with 2 parts shaded in each. Picture A shows three bars with two-fifths shaded in each bar. The answer is Picture A.
- Choice D is correct.** (4.OA.A.1) Read $12 = 3 \times 4$ in words: “12 equals 3 groups of 4.” That’s the same as saying “12 is 3 times as many as 4.” The other choices use *more*, *plus*, or *less*—those describe adding or subtracting, not multiplying.
- Choice C is correct.** (4.MD.C.7) The pie chart shows four sections. Add them all: $90^\circ + 80^\circ + 60^\circ + 50^\circ = 280^\circ$.
- Choice D is correct.** (4.NBT.B.5) Decompose and multiply: $33 \times (20 + 4) = 660 + 132 = 792$.
- Choice C is correct.** (4.G.A.2) Since all three angles are less than 90 degrees (acute angles), this triangle is classified as an acute triangle. The answer is C.
- Choice D is correct.** (4.OA.B.4) The pattern repeats every 3 items. Position $11 \div 3 = 3$ remainder 2, so the 11th item is the 2nd color: blue. ✓
- Choice B is correct.** (4.MD.B.4) Let us count: $\frac{2}{8}$ cup appears 2 times, $\frac{3}{8}$ cup appears 3 times, and $\frac{4}{8}$ cup appears 1 time. So $\frac{3}{8}$ cup is the most common.
- Choice A is correct.** (4.MD.C.6) At 88° , this angle is just shy of a right angle but still less than 90° . Any angle less than 90° is acute, no matter how close to 90° it gets. The answer is acute.
- Choice B is correct.** (4.NF.C.5) Add the two decimal parts: 0.2 (two tenths) $+ 0.09$ (nine hundredths) $= 0.29$.
- Choice D is correct.** (4.G.A.1) A square is built from four perfect corners, and each corner is exactly 90° . Count them: four corners means four right angles!
- The correct answer is A, E.** (4.NF.C.5) Choice A: $\frac{70}{100}$ is the hundredths form of $\frac{7}{10}$ —multiply by $\frac{10}{10}$. Choice E is $\frac{7}{10}$ itself. The others don’t equal 7 tenths.
- Choice B is correct.** (4.MD.A.1) Since 1 kilogram = 1,000 grams, multiply: $5 \times 1,000 = 5,000$ g. The answer is 5,000 g.
- Choice A is correct.** (4.NF.B.3) We have 5 copies of the unit fraction $\frac{1}{8}$. When we add them, the denominator stays 8, and we count the unit fractions: 5 of them. So $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$.
- The correct answer is 0.64.** (4.NF.C.5) Always compare tenths first—they have more weight than hundredths. 0.64 has 6 tenths; 0.46 has 4 tenths. Since $6 > 4$, 0.64 is greater. (Once tenths differ, the hundredths don’t matter.) ✓
- Choice A is correct.** (4.NF.A.1) Find common denominator 12: $\frac{5}{6} = \frac{10}{12}$ and $\frac{3}{4} = \frac{9}{12}$. Since $\frac{10}{12} > \frac{9}{12}$, Noah used more paint.
- Choice B is correct.** (4.NF.B.4) Four shelves, each $\frac{3}{10}$ meter wide, give us $4 \times \frac{3}{10} = \frac{12}{10}$ meters total width.
- Choice A is correct.** (4.NF.B.4) The fraction $\frac{5}{10}$ shows us 5 parts out of 10 equal parts. Since each part is $\frac{1}{10}$, we have 5 copies of $\frac{1}{10}$, or 5 tenths.
- Choice C is correct.** (4.MD.C.5) The opening is smaller than a right angle, so this is an acute angle.
- Choice B is correct.** (4.NF.B.4) Two groups of $\frac{2}{5}$ each: $2 \times \frac{2}{5} = \frac{2 \times 2}{5} = \frac{4}{5}$.
- Choice B is correct.** (4.MD.C.5) The tick marks go from 0° to 20° , so this angle measures 20° .



Hi, Math Pilot!

◇ 10 flights done in your math airplane. You have flown through smooth skies and bumpy clouds. You are a real pilot now. ◇

★ **Pilots know:** a good check before takeoff makes a smooth flight. Before each problem, do your check: read, plan, solve, verify. ★

Pilot Skills

- **Pre-Flight:** You read the question carefully.
- **Steering:** You pick the right strategy.
- **Smooth Flight:** You stay calm in long tests.
- **Landing:** You always check your final answer.

Pilot tip: on test day, take off one problem at a time. Trust your training. You earned your wings!

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

Jay Daie

Your Math Pilot

PRACTICE TODAY. ACHIEVE TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, boost confidence, and succeed in the classroom and beyond. With 10 full-length practice tests that reflect real test formats, students get the targeted practice they need to master key concepts, improve problem-solving abilities, and achieve their goals.

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Build the skills and confidence to reach higher goals.

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