

# 8

# Massachusetts

# MCAS

## GRADE 3

# MATH

## PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



8 Full-Length  
Practice Tests



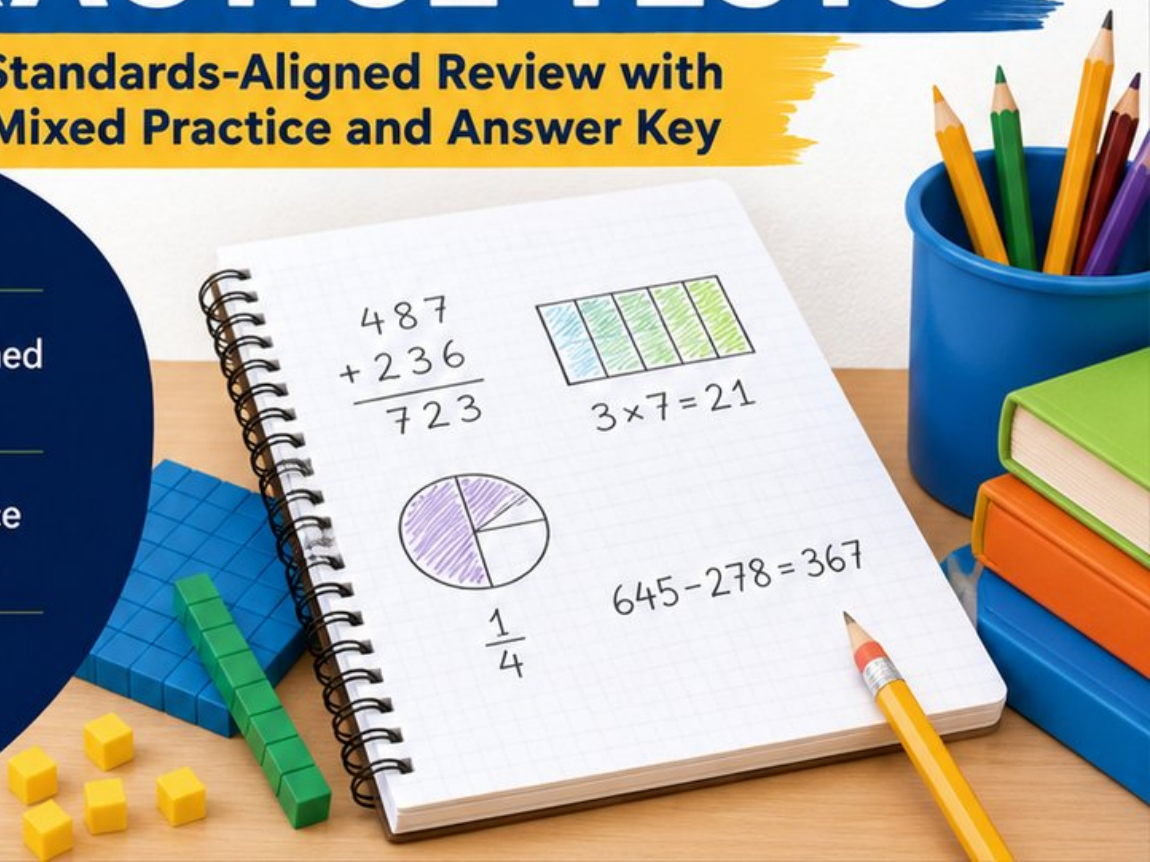
Standards-Aligned  
Questions



Build Confidence  
and Math Skills



Answer Key  
Included



# 8 Massachusetts MCAS Grade 3 Math Practice Tests

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



Eight complete 30-question practice rounds for Grade 3 math: operations, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Massachusetts, Your Eight-Test Math Path Begins

Eight focused rounds, one stronger Grade 3 problem solver

This book gives you eight full chances to practice like a careful test taker for the Massachusetts MCAS. Each test is a new route through numbers, shapes, data, measurement, and word problems. Work slowly enough to notice what the question asks, and proudly enough to show your thinking.

Massachusetts has historic streets, coastal science, town greens, train routes, and curious classrooms, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and turn clues into a clear strategy.

## Your Massachusetts Math Promise

I will read the whole question, choose a smart strategy, write clear work, and check whether my answer makes sense.

**Eight rounds. Thirty questions each. One careful step at a time.**

# How to Use This Book

## A simple eight-round routine for confident review

Use this Massachusetts book as a practice plan, not a race. Finish one test, review it, fix a few problems, then carry one better habit into the next test.

1. **Preview the reference page.** Notice units, time, and measurement facts before you begin.
2. **Take one full test.** Circle anything that feels tricky so you can return to it.
3. **Check the answer key.** Mark correct answers and questions to try again.
4. **Read explanations.** Study missed items and lucky guesses first.
5. **Redo three problems.** Write fresh work without copying the explanation.
6. **Name one habit.** Pick a focus such as labels, facts, fractions, or neat work.
7. **Try the next test.** Bring that habit forward.
8. **Finish with a final check.** Look for growth across all eight tests.

**Best review habit:** In Massachusetts, strong practice means slowing down enough to see the clue. When an answer is wrong, ask, “What step would I change next time?”



# What Is Inside the Eight Tests?

## Mixed Grade 3 math practice for the MCAS

Each practice test has 30 questions. You will see multiple-choice questions, select-all questions, and open-ended questions with workspace. The mix helps students practice both choosing an answer and explaining a short mathematical result.

Part	What to Expect
Eight full tests	30 mixed Grade 3 questions in each round
Math topics	multiplication, division, place value, fractions, time, measurement, data, area, perimeter, and shapes
Answer keys	compact answer boxes for quick checking
Explanations	short reasoning for every item so mistakes become useful review
Progress pages	places to record scores, habits, and next-step goals

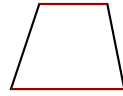
**Massachusetts focus:** The practice path starts with historic streets, coastal science, town greens, train routes, and curious classrooms. Strong math uses the same idea: know the path, follow the clues, and check the final answer.



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& answers

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Parallel sides

1)

This shape has exactly one pair of parallel sides. Which name describes this shape?

- A. Rectangle  C. Trapezoid  
 B. Rhombus  D. Square

2) Which number sentence is false?

- A.  $2 \times 9 = 9 \times 2$   C.  $8 \times 6 = 7 \times 6 + 1$   
 B.  $(2 \times 3) \times 3 = 2 \times (3 \times 3)$   D.  $4 \times (2 + 3) = 4 \times 2 + 4 \times 3$

3) Which rectangle measurement uses the distributive property correctly?

- A.  $4 \times (6 + 3) = (4 \times 6) + (4 \times 3) = 24 + 12 = 36$   C.  $4 \times (6 + 3) = 4 + 6 + 3 = 13$   
 B.  $4 \times (6 + 3) = (4 + 6) + (4 + 3) = 13 + 7 = 20$   D.  $4 \times (6 + 3) = (6 \times 3) + (4) = 22$

4) A garden has 4 rows of flowers. Each row has 7 flowers. How many flowers are in the garden?

- A. 24 flowers  C. 32 flowers  
 B. 11 flowers  D. 28 flowers

5) Find  $48 \div 6$ .

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6) A coach divides 24 students into 6 equal teams. How many students are on each team?

- A. 3                                       C. 5  
 B. 30                                       D. 4

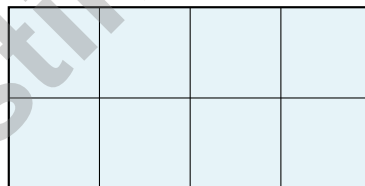
7) Two rectangles are shown. Rectangle A: length 6, width 3. Rectangle B: length 5, width 4. Which has the larger area?

- A. Rectangle A                                       D. Cannot tell from the information given  
 B. Rectangle B  
 C. They are equal

8) A school buys 9 boxes of crayons. They use 4 boxes in art class. Each remaining box has 10 crayons. How many crayons are left unused?

- A. 40                                       C. 60  
 B. 50                                       D. 90

9) How many unit squares cover this rectangle with no gaps or overlaps?



- A. 4 unit squares                                       C. 8 unit squares  
 B. 6 unit squares                                       D. 10 unit squares



10) Maya wants to find  $298 + 145$  using the “make a friendly number” strategy. Which equation shows the best first step?

A.  $(300 - 2) + 145 = 298 + 145$

C.  $(300 + 145) - (2 + 145) = 298 + 145$

B.  $298 + (150 - 5) = 298 + 145$

D.  $298 + 145 = (290 + 140) + (8 + 5)$

11) How many stars are there? Skip count by 10s to find the total.

3 groups of 10 =  $3 \times 10 = ?$



A. 13

C. 31

B. 103

D. 30

12) Ava cut a candy bar into thirds. She has  $\frac{15}{3}$  pieces. How many whole candy bars did she start with?

A. 3

C. 15

B. 5

D. 10

13) Round 95 to the nearest 10. (Hint: This is a rollover case where the tens digit becomes 0.)

A. 90

C. 100

B. 95

D. 110

14) Which fraction is NOT equivalent to  $\frac{3}{6}$ ?

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

C.  $\frac{4}{8}$

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

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



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1) Mia makes 28 cookies and puts 4 cookies on each plate. How many plates does she use?

A. 7

C. 32

B. 8

D. 24

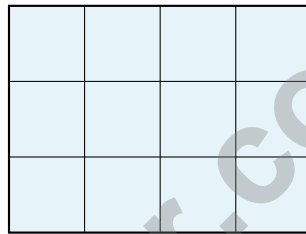
2) A long rectangle has area 60 square units. It is split vertically into two parts. One part is  $4 \times 10$ . What is the area of the other part if they share the same length?

A. 40

C. 30

B. 20

D. 60



3)

How many unit squares cover the rectangle shown in the grid?



4) A pizza shop made 312 pizzas on Friday and 289 pizzas on Saturday. How many pizzas did the shop make in total?

A. 501

C. 511

B. 610

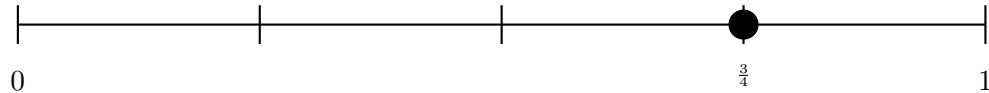
D. 601



5) Eli marks  $\frac{1}{6}$  on a number line from 0 to 1 divided into 6 equal parts. Then he marks  $\frac{5}{6}$ . Which point is closer to the right end of the line?

- A.  $\frac{5}{6}$   C. Neither is close to the end  
 B. Both are equally close  D.  $\frac{1}{6}$

6) On a number line from 0 to 1 divided into 4 equal parts, how many equal parts fit in the distance from 0 to  $\frac{3}{4}$ ?



A. 1 part  C. 3 parts  
 B. 2 parts  D. 4 parts

7) Ben has 4 sticker sheets with 8 stickers on each sheet. How many stickers does Ben have?

- A. 24 stickers  C. 32 stickers  
 B. 28 stickers  D. 36 stickers

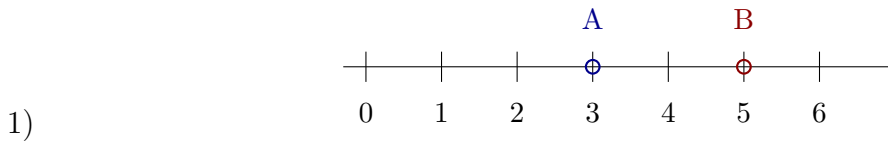
8) Lily buys 3 packages of toy cars. Each package has 40 toy cars. How many toy cars does Lily buy?

- A. 34  C. 120  
 B. 43  D. 1200

9) Round 537 to the nearest 10. What is the answer?



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The number line from 0 to 6 has points  $A$  at 3 and  $B$  at 5. Write  $A$  and  $B$  as fractions of the total distance.

- A.  $A = \frac{1}{2}, B = \frac{5}{6}$ 
 C.  $A = \frac{6}{3}, B = \frac{6}{5}$   
 B.  $A = \frac{3}{6}, B = \frac{6}{5}$ 
 D.  $A = \frac{3}{6}, B = \frac{5}{6}$

2) Write a fraction equivalent to  $\frac{1}{2}$  with a denominator of 4 using multiplication.

3) Ava has a rectangular piece of paper. The length is 7 inches and the width is 2 inches. What is the area?

- A. 9 sq in
  C. 12 sq in  
 B. 14 sq in
  D. 18 sq in

4) Which number sentence matches “How many groups of 4 are in 16?”

- A.  $4 + 16$ 
 C.  $4 \times 16$   
 B.  $16 - 4$ 
 D.  $16 \div 4$





## 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

- 1) **Choice C is correct.** **(3.G.A.1)** A trapezoid is defined as a quadrilateral with exactly one pair of parallel sides.
- 2) **Choice C is correct.** **(3.OA.B.5)** This is false.  $8 \times 6 = 48$  but  $7 \times 6 + 1 = 42 + 1 = 43$ . Option C does not follow any property.
- 3) **Choice A is correct.** **(3.MD.C.7)** Multiply the outside number by each part inside, then add.
- 4) **Choice D is correct.** **(3.OA.A.1)** 4 rows with 7 flowers each means 4 groups of 7. So  $4 \times 7 = 28$  flowers.
- 5) **The correct answer is 8.** **(3.OA.A.3)**  $48 \div 6 = 8$ .
- 6) **Choice D is correct.** **(3.OA.A.2)**  $24 \div 6 = 4$ . Divide the total students by the number of teams.
- 7) **Choice B is correct.** **(3.MD.C.7)** Rectangle A:  $6 \times 3 = 18$  sq units. Rectangle B:  $5 \times 4 = 20$  sq units.  $20 > 18$ , so B is larger.
- 8) **Choice B is correct.** **(3.OA.D.8)** Step 1: Remaining boxes:  $9 - 4 = 5$  boxes. Step 2: Crayons in remaining boxes:  $5 \times 10 = 50$  crayons. (Choice C is the answer to step 1 multiplied by 12; choice D is step 1 error times 10.)
- 9) **Choice C is correct.** **(3.MD.C.6)** Count rows and columns: 4 units wide and 2 units tall equals  $4 \times 2 = 8$  unit squares covering the rectangle with no gaps or overlaps.
- 10) **Choice A is correct.** **(3.NBT.A.2)** Using “make a friendly number,” rewrite 298 as  $300 - 2$ . Then:  $(300 - 2) + 145 = 300 + 145 - 2 = 445 - 2 = 443$ . This avoids regrouping in ones. Distractors show other valid decompositions but miss the “friendly number” goal.
- 11) **Choice D is correct.** **(3.NBT.A.3)** Skip count by 10s: 10, 20, 30. There are 3 groups of 10 stars, so  $3 \times 10 = 30$  stars total.
- 12) **Choice B is correct.** **(3.G.A.2)** 15 thirds means  $15 \div 3 = 5$  wholes. Each candy bar had 3 thirds.
- 13) **Choice C is correct.** **(3.NBT.A.1)** The ones digit is 5. Since  $5 \geq 5$ , round up: 95 rounds to 100 (rollover case).
- 14) **Choice D is correct.** **(3.NF.A.3)**  $\frac{3}{6} = \frac{1}{2}$ . Choices A, B, and C are all equivalent to  $\frac{1}{2}$ . Only  $\frac{2}{3}$  is not equivalent.
- 15) **Choice B is correct.** **(3.NF.A.1)** Four equal parts on the number line give unit fraction  $\frac{1}{4}$ .
- 16) **Choices B and D are correct.** **(3.NF.A.3)** With numerator 1, smaller denominators give larger pieces. Thirds and halves are larger than fourths. A and C have larger denominators (sixths and eighths) so they are smaller. E equals  $\frac{1}{4}$  (not greater).
- 17) **Choice C is correct.** **(3.NF.A.2)**  $\frac{6}{8}$  is 6 out of 8 equal parts, which is at the sixth tick mark from 0.
- 18) **Choice B is correct.** **(3.G.A.2)** Two slices out of eight equal slices is  $\frac{2}{8}$ .
- 19) **Choice D is correct.** **(3.OA.B.6)**  $54 \div 6 = \square$  means  $\square \times 6 = 54$ . Since  $9 \times 6 = 54$ , the answer is 9.
- 20) **Choice C is correct.** **(3.MD.C.5)** Top:  $3 \times 5 = 15$  sq units. Bottom left:  $2 \times 4 = 8$  sq units. Bottom right:  $2 \times 4 = 8$  sq units. Total:  $15 + 8 + 8 = 31$  sq units.
- 21) **Choice D is correct.** **(3.MD.C.5)** Count the rows: 3 rows. Count the columns: 3 columns. The area is 9 square units.
- 22) **Choice A is correct.** **(3.MD.C.5)**  $10 \times 2 = 20$  square units.
- 23) **Choice B is correct.** **(3.MD.B.3)** Multiply the height by the scale:  $3 \times 5 = 15$  goldfish.
- 24) **Choice D is correct.** **(3.OA.A.4)** Use the inverse:  $8 \times 3 = 24$ , so  $24 \div 3 = 8$ .
- 25) **The correct answer is 2 X's.** **(3.MD.B.4)** Two leaves measured exactly  $2\frac{1}{4}$  inches, so there would be 2 X's above the  $2\frac{1}{4}$  mark.
- 26) **Choice B is correct.** **(3.MD.A.2)** 3 kg = 3000 g. Add:  $3000 + 500 = 3500$  g.
- 27) **Choice A is correct.** **(3.MD.A.1)**  $6 : 11 - 26 \text{ min} = 5 : 45 \text{ PM}$ .
- 28) **Choice C is correct.** **(3.OA.D.9)** Add 6 each time:  $36 + 6 = 42$ . This is the pattern for multiples of 6.
- 29) **Choice C is correct.** **(3.NF.A.2)**  $\frac{3}{4} = \frac{6}{8}$  because both represent three-fourths of the rectangle.
- 30) **The correct answer is 8.** **(3.OA.C.7)**  $72 \div 9 = 8$ .



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## Hi, Strong Climber!

◇ You climbed all 8 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

### Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

**Guide's tip:** on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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. MASTER TOMORROW.

This book is designed to help **Grade 3** students strengthen their math skills through focused practice and real progress.

- ✓ 8 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success



## EACH PRACTICE TEST INCLUDES:



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Aligned  
Questions



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Question  
Types



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Math  
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Step-by-Step  
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