



MASSACHUSETTS

Department of Elementary
and Secondary Education

*Release of Spring 2026
MCAS Test Items from the
Grade 3 Mathematics
Paper-Based Test*

Spring 2026

**Massachusetts Department of
Elementary and Secondary Education**



MASSACHUSETTS

Department of Elementary
and Secondary Education

This document was prepared by the
Massachusetts Department of Elementary and Secondary Education
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Commissioner

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Overview of Grade 3 Mathematics Test

The spring 2026 grade 3 Mathematics test was administered in two formats: a computer-based version and a paper-based version. Most students took the computer-based test. The paper-based test was offered as an accommodation for eligible students who were unable to use a computer. More information can be found on the MCAS Test Administration Resources page at www.doe.mass.edu/mcas/admin.html.

Most of the operational items on the grade 3 Mathematics test were the same, regardless of whether a student took the computer-based version or the paper-based version. In places where a technology-enhanced item was used on the computer-based test, an adapted version of the item was created for use on the paper test. These adapted paper items were multiple-choice, multiple-select, or short-answer items that tested the same Mathematics content and assessed the same standard as the technology-enhanced item.

This document displays released items from the paper-based test. Released items from the computer-based test are available on the MCAS Resource Center website at mcas.onlinehelp.cognia.org/released-items.

Test Sessions and Content Overview

The grade 3 Mathematics test was made up of two separate test sessions. Each session included selected-response, short-answer, and constructed-response questions. On the paper-based test, the selected-response questions were multiple-choice items and multiple-select items, in which students select the correct answer(s) from among several answer options.

Standards and Reporting Categories

The grade 3 Mathematics test was based on standards in the five domains for grade 3 in the *Massachusetts Curriculum Framework for Mathematics* (2017). The five domains are listed below.

- Operations and Algebraic Thinking
- Number and Operations in Base Ten
- Number and Operations—Fractions
- Measurement and Data
- Geometry

The *Massachusetts Curriculum Framework for Mathematics* is available on the Department website at www.doe.mass.edu/frameworks/current.html.

Mathematics test results are reported under five MCAS reporting categories, which are identical to the five framework domains listed above.

The tables at the conclusion of this document provide the following information about each released and unreleased operational item: reporting category, standard(s) covered, item type, and item description. The correct answers for released selected-response and short-answer questions are also displayed in the released item table.

Reference Materials and Tools

Each student taking the grade 3 Mathematics test was provided with a ruler.

During both Mathematics test sessions, the use of authorized bilingual word-to-word dictionaries and glossaries was allowed for students who are currently or were ever reported as English learners. No calculators, other reference tools, or materials were allowed.

Grade 3 Mathematics

SESSION 1

This session contains 10 questions.

You may **not** use a calculator during this session.



Directions

Read each question carefully and then answer it as well as you can. You must record all answers in this Test & Answer Booklet.

For some questions, you will mark your answers by filling in the circles in your Test & Answer Booklet. Make sure you darken the circles completely. Do not make any marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

For other questions, you will need to fill in an answer grid. Directions for completing questions with answer grids are provided on the next page.

If a question asks you to show or explain your work, you must do so to receive full credit. Write your response in the space provided. Only responses written within the provided space will be scored.

1. Work the question and find an answer.
2. Enter your answer in the answer boxes at the top of the answer grid.
3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.
4. Under each answer box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.
5. Do not fill in a circle under an unused answer box.
6. If you need to change an answer, be sure to erase your first answer completely.
7. See below for examples of how to correctly complete an answer grid.

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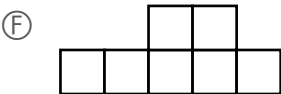
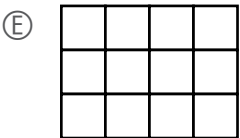
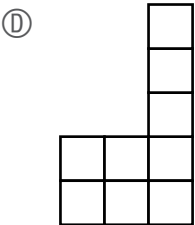
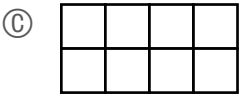
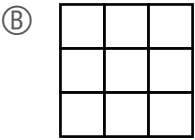
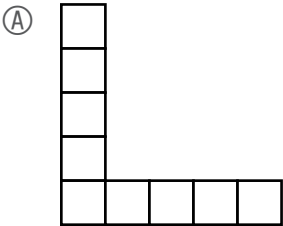
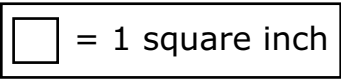
- 1** A third-grade student collected pennies on Monday and Tuesday.
- On Monday, he collected 178 pennies.
 - On Tuesday, he collected 435 pennies.

What is the total number of pennies the student collected on Monday and Tuesday?

- Ⓐ 503
- Ⓑ 513
- Ⓒ 603
- Ⓓ 613

2 Which of these shapes have an area of 9 square inches?

Select the **three** correct answers.



3 A shopper has \$93. The shopper spends \$21 to buy a shirt and \$33 to buy pants.

Which of these is **closest** to the amount of money the shopper has **remaining** after buying the shirt and the pants?

- Ⓐ \$30
- Ⓑ \$40
- Ⓒ \$70
- Ⓓ \$80

- 4 The Soup Cafe sells three different kinds of soup. This table shows the number of bowls of each kind of soup that were sold at lunch one day.

Soup Cafe Sales

Soup	Number of Bowls Sold
Bean	5
Chili	8
Pea	4

Which picture graph correctly shows the information given in the table?

A

Soup Cafe Sales

Soup	Number of Bowls Sold
Bean	
Chili	
Pea	

Key
Each  = 2 bowls

B

Soup Cafe Sales

Soup	Number of Bowls Sold
Bean	
Chili	
Pea	

Key
Each  = 2 bowls

C

Soup Cafe Sales

Soup	Number of Bowls Sold
Bean	
Chili	
Pea	

Key
Each  = 2 bowls

D

Soup Cafe Sales

Soup	Number of Bowls Sold
Bean	
Chili	
Pea	

Key
Each  = 2 bowls

- 5** Which of these comparisons are true?

Select the **two** correct answers.

Ⓐ $\frac{3}{4} < \frac{3}{6}$

Ⓑ $\frac{2}{8} < \frac{7}{8}$

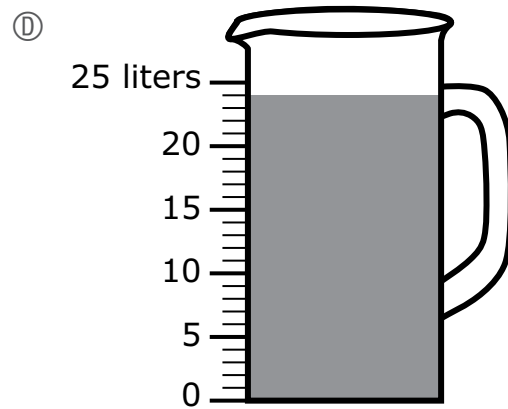
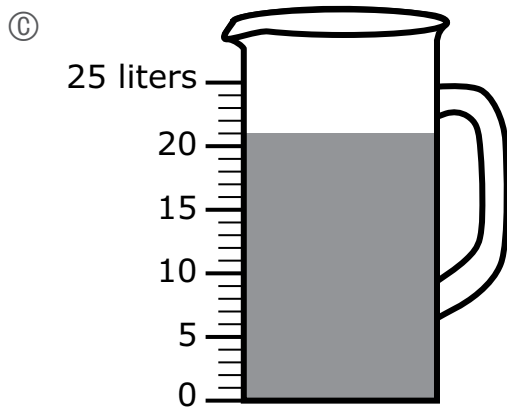
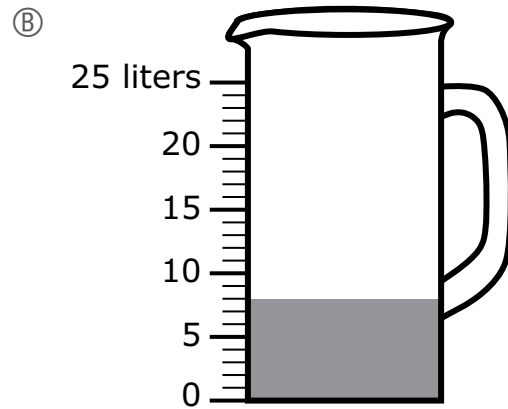
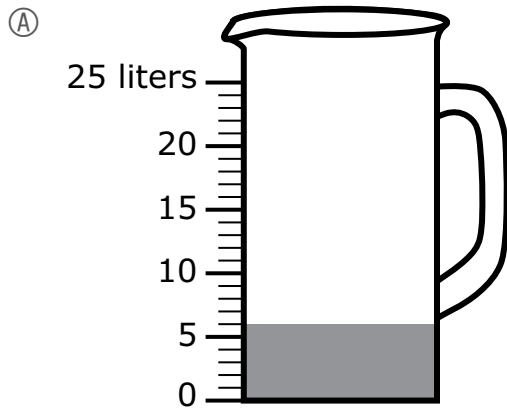
Ⓒ $\frac{5}{8} > \frac{5}{6}$

Ⓓ $\frac{6}{8} < \frac{6}{6}$

Ⓔ $\frac{4}{6} > \frac{5}{6}$

- 6 A student had 24 liters of water in a bucket. The student poured all the water into 3 pitchers. The student poured the same amount of water into each pitcher.

Which of these shows the amount of water, in liters, in **each** pitcher?



This question has three parts.

- 7** A student is rounding the numbers in this list.

289, 334, 347, 248, 273, 302

Part A

The student says “all of the numbers in the list round to 300 when rounding to the nearest **hundred**.”

Which number in the list makes the student’s statement false? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

Part B

The student then rounds both 334 and 347 to the nearest **ten** and gets 340.

Is the student correct? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

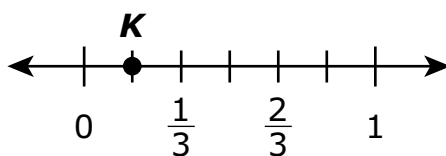
Part C

The student wants to write a new number that rounds to 300 when rounding to the nearest **hundred**.

What is the **greatest** number that the student can write? Explain how you got your answer.

Enter your number and your explanation in the space provided.

- 8 Point K is shown on this number line.



Which of these fractions describes the location of point K on the number line?

- Ⓐ $\frac{1}{2}$
- Ⓑ $\frac{1}{4}$
- Ⓒ $\frac{1}{5}$
- Ⓓ $\frac{1}{6}$

- 9 A student is solving this division equation.

$$56 \div 7 = \boxed{?}$$

What is one way the student can find the number that belongs in the $\boxed{?}$ to make the equation true?

- Ⓐ Find the number that can be added to 7 to make 56.
- Ⓑ Find the number that can be divided by 7 to make 56.
- Ⓒ Find the number that can be multiplied by 7 to make 56.
- Ⓓ Find the number that can be subtracted from 7 to make 56.

- 10** A parking lot is split into equal parts. Each part is $\frac{1}{8}$ of the area of the whole parking lot.

What is the total number of equal parts that make up the area of the whole parking lot?

Enter your answer in the answer boxes at the top of the answer grid **and** completely fill the matching circles.

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5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Grade 3 Mathematics

SESSION 2

This session contains 10 questions.

You may **not** use a calculator during this session.



Directions

Read each question carefully and then answer it as well as you can. You must record all answers in this Test & Answer Booklet.

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Directions for Completing Questions with Answer Grids

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3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.
4. Under each answer box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.
5. Do not fill in a circle under an unused answer box.
6. If you need to change an answer, be sure to erase your first answer completely.
7. See below for examples of how to correctly complete an answer grid.

Examples

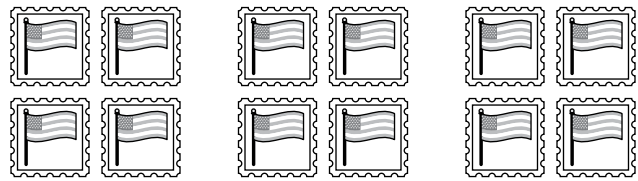
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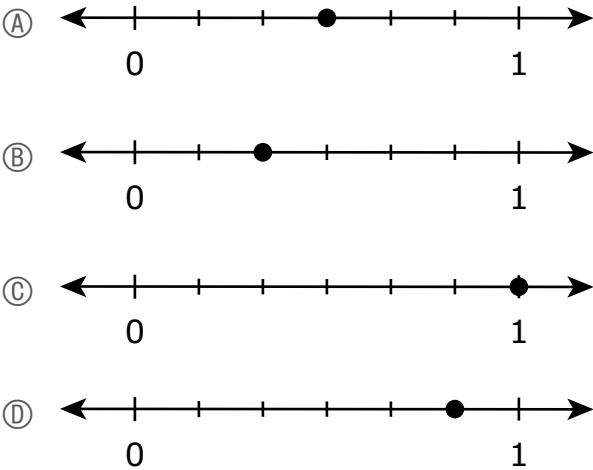
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- 11 A teacher used stamps to model an equation, as shown.



Which of these could be the equation the teacher modeled?

- (A) $3 + 4 = \boxed{?}$
- (B) $3 \times 4 = \boxed{?}$
- (C) $3 + 3 + 3 = \boxed{?}$
- (D) $4 \times 4 \times 4 = \boxed{?}$
- 12 Which number line shows a point that represents the location of $\frac{3}{6}$?

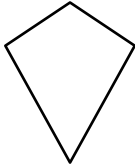


13 A student drew a shape.

- The shape is a quadrilateral.
- The shape has two pairs of opposite sides that are equal in length.

Which of these could be the shape the student drew?

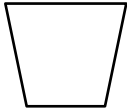
(A)



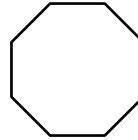
(B)



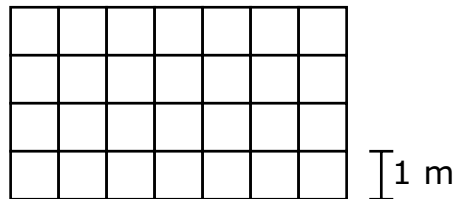
(C)



(D)



14 A floor of a room is in the shape of a rectangle. The floor is covered with square tiles, with no gaps or overlaps, as shown in this diagram.



Each tile has side lengths of 1 meter (m).

Which of these expressions could be used to find the area, in square meters, of the floor?

Select the **two** correct answers.

(A) $4 + 7$

(B) 4×7

(C) $7 \times 7 \times 7 \times 7$

(D) $4 + 7 + 4 + 7$

(E) $7 + 7 + 7 + 7$

This question has three parts.

- 15** Aisha, Brayden, and Emilio are solving multiplication problems.

Part A

Aisha writes this equation.

$$9 \times a = 9$$

What value of a makes Aisha's equation true?

Enter your answer in the space provided.

Part B

Brayden writes this expression.

$$8 \times 7$$

Write a different multiplication expression that is equivalent to Brayden's expression. Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part C

Emilio writes this expression.

$$20 \times 8$$

Emilio then writes another expression.

$$(2 \times 8) + (10 \times 8)$$

Emilio says the values of his two expressions are equivalent.

Is Emilio correct? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

- 16 Which of the following statements is true?
- Ⓐ The number of square units needed to cover the surface of a figure is the length.
 - Ⓑ The number of square units needed to cover the surface of a figure is the width.
 - Ⓒ The number of square units needed to cover the surface of a figure is the perimeter.
 - Ⓓ The number of square units needed to cover the surface of a figure is the area.

- 17 A worker finished eating lunch at the time shown on this clock.



The worker took 20 minutes to eat lunch.

Which clock shows the time at which the worker **started** eating lunch?



- 18** A student wrote this fraction.

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

Which fraction is equivalent to the student's fraction?

Ⓐ $\frac{2}{3}$

Ⓑ $\frac{4}{3}$

Ⓒ $\frac{4}{5}$

Ⓓ $\frac{6}{8}$

- 19** Which of these equations are true?

Select the **three** correct answers.

Ⓐ $56 \div 8 = 7$

Ⓑ $56 \div 8 = 6$

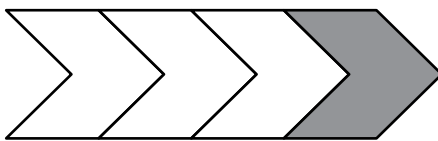
Ⓒ $42 \div 7 = 8$

Ⓓ $42 \div 7 = 6$

Ⓔ $32 \div 4 = 8$

Ⓕ $32 \div 4 = 7$

- 20 This figure is divided into equal parts.



What fraction of the area of the whole figure is the shaded part?

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

Grade 3 Mathematics

Spring 2026 Released Operational Items

PBT Item No.	Page No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer**
1	5	<i>Number and Operations in Base Ten</i>	3.NBT.A.2	SR	Solve an addition word problem by adding 2 three-digit numbers.	D
2	6	<i>Measurement and Data</i>	3.MD.C.6	SR	Determine which irregular shapes have a specified area by counting the unit squares in the shapes.	A,B,D
3	6	<i>Operations and Algebraic Thinking</i>	3.OA.D.8	SR	Identify the best estimate for the solution to a two-step word problem using subtraction.	B
4	7	<i>Measurement and Data</i>	3.MD.B.3	SR	Identify a scaled picture graph from a given set of data.	A
5	8	<i>Number and Operations-Fractions</i>	3.NF.A.3	SR	Identify correct comparisons of two fractions with the same numerator or the same denominator.	B,D
6	9	<i>Measurement and Data</i>	3.MD.A.2	SR	Solve a word problem involving division and measurements given in liters.	B
7	10–11	<i>Number and Operations in Base Ten</i>	3.NBT.A.1	CR	Determine and justify which numbers from a given list round to the same 100, identify the greatest number that will also round to the same 100, and explain whether given numbers are correctly rounded to the nearest 10.	
8	12	<i>Number and Operations-Fractions</i>	3.NF.A.2	SR	Determine the fraction that is plotted on a given number line.	D
9	12	<i>Operations and Algebraic Thinking</i>	3.OA.B.6	SR	Choose the related operation that can be used to find an unknown quotient.	C
10	13	<i>Geometry</i>	3.G.A.2	SA	Given the unit fraction that each piece is of a whole, determine the number of equal pieces in the whole.	8
11	16	<i>Operations and Algebraic Thinking</i>	3.OA.A.1	SR	Determine the equation that can be used to model a given multiplication situation.	B
12	16	<i>Number and Operations-Fractions</i>	3.NF.A.2	SR	Determine the point on a partitioned number line that shows the location of a given fraction less than one.	A
13	17	<i>Geometry</i>	3.G.A.1	SR	Identify the shape that has two given attributes.	B
14	17	<i>Measurement and Data</i>	3.MD.C.7	SR	Identify the two expressions that can be used to find the area of a given rectangle that is tiled.	B,E
15	18–19	<i>Operations and Algebraic Thinking</i>	3.OA.B.5	CR	Use properties of multiplication to determine an unknown value in an expression, write an equivalent expression, and explain whether given expressions are equivalent.	
16	20	<i>Measurement and Data</i>	3.MD.C.5	SR	Identify the correct statement relating square units to what is measured.	D

PBT Item No.	Page No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer**
17	20	<i>Measurement and Data</i>	3.MD.A.1	SR	Solve a word problem to determine a starting time, given the ending time on a digital clock and the time interval.	C
18	21	<i>Number and Operations-Fractions</i>	3.NF.A.3	SR	Identify a fraction that is equivalent to a given fraction.	D
19	21	<i>Operations and Algebraic Thinking</i>	3.OA.C.7	SR	Determine the quotients of given division expressions.	A,D,E
20	22	<i>Geometry</i>	3.G.A.2	SR	Determine what unit fraction is represented by one shaded part of a figure.	C

* Mathematics item types are: selected-response (SR), short-answer (SA), and constructed-response (CR).

** Answers are provided here for selected-response and short-answer items only. Sample responses and scoring guidelines for any constructed-response items will be posted to the Department's website later this year.

Grade 3 Mathematics

Spring 2026 Unreleased Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
21	Geometry	3.G.A.1	SR	Determine if given shapes have four right angles and/or four equal sides.
22	Operations and Algebraic Thinking	3.OA.A.4	SR	Determine which multiplication and division equations are true when the unknown quantity is replaced with a given value.
23	Number and Operations-Fractions	3.NF.A.1	CR	Determine the fraction represented by a fraction model, justify your answer, and then create a fraction model of a fraction greater than one.
24	Operations and Algebraic Thinking	3.OA.A.3	SR	Use an array to identify a multiplication equation that matches a division equation.
25	Number and Operations-Fractions	3.NF.A.3	SR	Identify a fraction equivalent to one whole.
26	Measurement and Data	3.MD.C.7	SR	Determine which equation can be used when decomposing a rectilinear figure to find the total area.
27	Operations and Algebraic Thinking	3.OA.D.9	SR	Determine the rule in a given number pattern.
28	Operations and Algebraic Thinking	3.OA.A.4	SR	Determine the value of a variable that will make a division equation true.
29	Measurement and Data	3.MD.B.3	SR	Identify a scaled picture graph from a given set of data.
30	Number and Operations in Base Ten	3.NBT.A.3	SR	Solve a word problem by multiplying a one-digit whole number by a multiple of 10.
31	Operations and Algebraic Thinking	3.OA.A.3	SA	Solve a word problem by multiplying two one-digit whole numbers.
32	Operations and Algebraic Thinking	3.OA.D.8	SR	Solve a two-step word problem using multiplication.
33	Number and Operations in Base Ten	3.NBT.A.2	SR	Compare three-digit whole numbers given in a table by subtracting.
34	Number and Operations-Fractions	3.NF.A.3	SR	Identify a fraction that is equivalent to a given fraction when both fractions are represented by models.
35	Operations and Algebraic Thinking	3.OA.A.2	SR	Determine which real-world situations can be represented by a given division expression.
36	Number and Operations in Base Ten	3.NBT.A.3	SA	Determine the product of a one-digit whole number and a multiple of 10 to solve a word problem.
37	Measurement and Data	3.MD.B.4	CR	Measure an object with a ruler to the nearest quarter inch, add the data to a given line plot, and answer a question based on the line plot and the measure of the item.
38	Measurement and Data	3.MD.D.8	SR	Identify rectangles that have the same area but have a different perimeter.
39	Geometry	3.G.A.1	SR	Determine which shape is a specific type of quadrilateral given two specific characteristics.
40	Operations and Algebraic Thinking	3.OA.D.9	SR	Identify a pattern with an even starting number and a given rule.

* Mathematics item types are: selected-response (SR), short-answer (SA), and constructed-response (CR).