

Computer-Based Released Items Grade 5 MCAS Mathematics Spring 2026

The spring 2026 grade 5 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.

The Department of Elementary and Secondary Education is releasing items from both versions of the test to provide information about the knowledge and skills that students are expected to demonstrate.

- Released items from the computer-based test are available online at mcas.onlinehelp.cognia.org/released-items.
- Released items from the paper-based test are available in PDF format on the Department's website at www.doe.mass.edu/mcas/release.html.

This document provides information about each released and unreleased operational item from the computer-based test, including the following: reporting category, standard covered, item type, item description, and correct answer (for released selected-response and short-answer items only). Sample responses and scoring guidelines for constructed-response items will be posted at www.doe.mass.edu/mcas/student/.

A Note about Testing Mode

Most of the operational items on the grade 5 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 or multiple-select items that tested the same Mathematics content and assessed the same standard as the technology-enhanced item.

Grade 5 Mathematics
Spring 2026 Computer-Based Released Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer **
1	<i>Number and Operations in Base Ten</i>	5.NBT.A.2	SR	Determine which whole number is equivalent to a given power of ten.	C
2	<i>Measurement and Data</i>	5.MD.B.2	SR	Determine the sum of a group of fractions presented in a line plot.	C
3	<i>Geometry</i>	5.G.B.3	SR	Determine the mathematical names that can describe a specified triangle.	see page 6
4	<i>Operations and Algebraic Thinking</i>	5.OA.B.3	CR	Extend two different addition patterns and explain the relationship between corresponding terms in the patterns.	
5	<i>Number and Operations-Fractions</i>	5.NF.B.7	SA	Determine the quotient of a whole number divided by a unit fraction.	28
6	<i>Operations and Algebraic Thinking</i>	5.OA.A.2	SR	Interpret a numerical expression with parentheses without evaluating it.	D
7	<i>Number and Operations-Fractions</i>	5.NF.A.2	SR	Estimate the sum of two fractions that are less than one to solve a word problem.	A
8	<i>Number and Operations-Fractions</i>	5.NF.B.4	SA	Determine the product of a whole number and a unit fraction and determine the area of a rectangle with fractional side lengths.	Part A: A Part B: see page 6
9	<i>Number and Operations in Base Ten</i>	5.NBT.B.7	SR	Use multiplication and subtraction with given decimals to tenths and hundredths.	see page 6
10	<i>Measurement and Data</i>	5.MD.C.3	SA	Determine the number of unit cubes that are used to build a prism given the volume of the prism.	9
11	<i>Number and Operations in Base Ten</i>	5.NBT.A.3	SR	Determine the expanded form of a given decimal number to thousandths.	A
12	<i>Number and Operations-Fractions</i>	5.NF.B.3	SR	Solve a word problem involving division of two whole numbers with a mixed number quotient.	C
13	<i>Number and Operations in Base Ten</i>	5.NBT.B.5	CR	Solve a problem involving multiplying whole numbers including one-digit by four-digit, two-digit by four-digit, and three-digit by three-digit multiplication.	
14	<i>Number and Operations-Fractions</i>	5.NF.B.5	SR	Identify the relationship between the product of a fraction and a mixed number and one of its factors, and identify the rationale for that relationship.	B

15	<i>Geometry</i>	5.G.A.1	SR	Determine the distance along the x-axis between a point, represented by a given ordered pair, and the origin.	B
16	<i>Measurement and Data</i>	5.MD.A.1	SA	Solve a multi-step, real-world word problem by converting cups to a fraction of a gallon and display the answer using a slider on a vertical number line.	see page 7
17	<i>Measurement and Data</i>	5.MD.C.3	SR	Determine the volume of a right rectangular prism filled with a specified number of cubes with a given edge length.	see page 7
18	<i>Number and Operations-Fractions</i>	5.NF.A.1	SA	Find the difference between a mixed number and a fraction.	$\frac{37}{21}$
19	<i>Geometry</i>	5.G.A.2	SR	Determine which interpretation of the x-coordinate and y-coordinate values of points plotted on a coordinate plane represent a real-world context.	see page 7
20	<i>Number and Operations in Base Ten</i>	5.NBT.B.6	SR	Solve a word problem involving finding the quotient of a four-digit dividend and a two-digit divisor.	A

*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. Pages 6 and 7 of this document provide correct answers for technology-enhanced (TE) items. Sample responses and scoring guidelines for constructed-response items will be posted at www.doe.mass.edu/mcas/student/default.html.

Grade 5 Mathematics
Spring 2026 Computer-Based Unreleased Operational Items

CBT Item No.	Reporting Category	Standard	Item Type	Item Description
21	<i>Measurement and Data</i>	5.MD.C.4	SR	Determine the volumes of figures by counting unit cubes.
22	<i>Operations and Algebraic Thinking</i>	5.OA.A.1	SR	Determine the location of parentheses that will make an expression equivalent to a given value.
23	<i>Number and Operations-Fractions</i>	5.NF.B.7	SR	Determine the equation with a variable that can be used to solve a given word problem involving dividing a unit fraction by a whole number.
24	<i>Number and Operations in Base Ten</i>	5.NBT.B.6	SR	Write a division equation with a 4-digit dividend, a 1-digit divisor, and a variable quotient and then use the equation to solve a word problem.
25	<i>Number and Operations in Base Ten</i>	5.NBT.A.4	SR	Round a decimal number to the nearest hundredth.
26	<i>Number and Operations-Fractions</i>	5.NF.B.5	SR	Given several expressions, determine whether the product of each expression is greater than, less than, or equal to the value of a given factor of the expression.
27	<i>Measurement and Data</i>	5.MD.C.5	CR	Determine the volume of a right rectangular prism by filling it with cubes and showing that it is the same volume as multiplying the edge lengths, solve a real-world problem involving finding the possible width and height of a prism given the length and the volume, and explain how to find the total volume of a solid figure made up of two right rectangular prisms.
28	<i>Geometry</i>	5.G.A.2	SA	Graph three points in the first quadrant of the coordinate plane.
29	<i>Number and Operations in Base Ten</i>	5.NBT.A.1	SR	Identify the number that contains a digit whose value is one-tenth the value of the same digit in another number.
30	<i>Number and Operations in Base Ten</i>	5.NBT.A.3	SR	Compare decimals to hundredths.
31	<i>Number and Operations in Base Ten</i>	5.NBT.B.7	SR	Solve a real-world problem by adding two decimal numbers to the hundredths.
32	<i>Number and Operations-Fractions</i>	5.NF.B.6	CR	Determine the product of two fractions; write and solve an equation to represent a given problem; and multiply fractions with fractions, mixed numbers, or whole numbers to solve real-world problems.
33	<i>Number and Operations in Base Ten</i>	5.NBT.A.1	SR	Determine the relationship of the value of a digit in a decimal number compared to the value of that digit in another decimal number.
34	<i>Measurement and Data</i>	5.MD.C.4	SA	Determine the volume of a right rectangular prism by counting the unit cubes that make up the prism.

35	<i>Operations and Algebraic Thinking</i>	5.OA.A.1	SA	Evaluate an expression that includes a set of parentheses.
36	<i>Operations and Algebraic Thinking</i>	5.OA.A.2	SR	Identify a word expression that is equivalent to a given numerical expression that has parentheses.
37	<i>Number and Operations in Base Ten</i>	5.NBT.A.2	SR	Determine which product of a whole number multiplied by a power of 10 is equivalent to a given number.
38	<i>Geometry</i>	5.G.B.4	SR	Classify a triangle based on its given side lengths and identify true statements about one type of triangle.
39	<i>Number and Operations-Fractions</i>	5.NF.B.7	SR	Find the quotient of a fraction and a whole number in a real-world context.
40	<i>Number and Operations in Base Ten</i>	5.NBT.A.4	SR	Round a given decimal number in thousandths to the nearest tenth.

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

Correct Answer for CBT Item #3: Technology-Enhanced Item

acute

obtuse

right

scalene

equilateral

Correct Answer for CBT Item #8: Technology-Enhanced Item

Part B

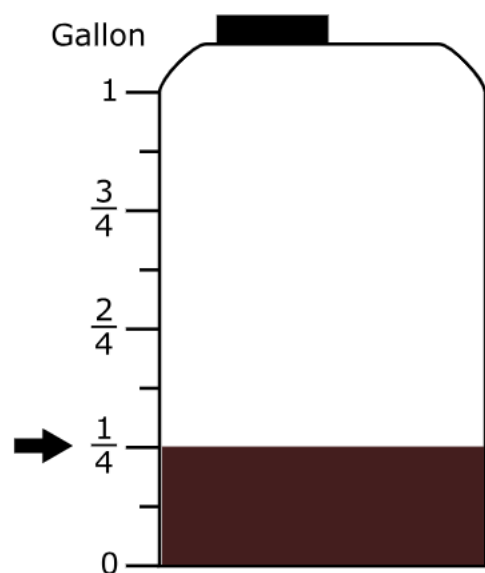
$$\frac{6}{12}$$

Correct Answer for CBT Item #9: Technology-Enhanced Item

$$8.3 \times 4.5 = 37.35$$

$$98.75 - 63.8 = 34.95$$

Correct Answer for CBT Item #16: Technology-Enhanced Item



Correct Answer for CBT Item #17: Technology-Enhanced Item

The **large** cube is equivalent to

The **total** volume of the prism is cubic centimeters.

Correct Answer for CBT Item #19: Technology-Enhanced Item

Statement	True	False
The total cost of 6 ice-cream cones is \$2 .	☐	☒
The total cost of 4 ice-cream cones is \$12 .	☒	☐
The total cost of 18 ice-cream cones is \$6 .	☐	☒