Computer-Based Released Items
Grade 6 RICAS Mathematics
Spring 2025

The spring 2025 grade 6 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.

The Department of 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 ricas.onlinehelp.cognia.org/released-items.
- Released items from the **paper-based test** are available in PDF format on the Department's website at www.ride.ri.gov/InstructionAssessment/Assessment/ReleasedItemsPracticeTests.aspx.

This document provides information about each released item from the *computer-based test*, including the following: reporting category, standard covered, item type, item description, and correct answer (for selected-response and short-answer items only). This information is also provided for unreleased operational items.

A Note about Testing Mode
Most of the operational items on the grade 6 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 6 Mathematics
Spring 2025 Computer-Based Released Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer (SR)**
1	*The Number System*	6.NS.B.4	SR	Determine the greatest common factor of two given numbers.	C
2	*Expressions and Equations*	6.EE.A.1	SR	Represent the value of a given number as an expression with a whole-number exponent.	C
3	*Ratios and Proportional Relationships*	6.RP.A.1	SR	Given relationships described in words, identify the ratio that represents each relationship.	*see page 6*
4	*The Number System*	6.NS.C.6	SR	Determine the value of a given point on a number line.	B
5	*The Number System*	6.NS.B.2	SR	Determine whether given division equations are true or false.	*see page 6*
6	*Expressions and Equations*	6.EE.B.6	CR	Create and evaluate expressions based on a real-world situation.	
7	*Ratios and Proportional Relationships*	6.RP.A.3	SR	Determine the volume of a solid by using rate and ratio reasoning within a real-world context.	D
8	*Statistics and Probability*	6.SP.A.1	SR	Distinguish statistical questions from non-statistical questions.	*see page 6*
9	*Expressions and Equations*	6.EE.A.2	SR	Create a word expression that represents a mathematical expression.	*see page 6*
10	*Geometry*	6.G.A.4	SR	Use the net of a triangular prism to find its surface area.	C
11	*The Number System*	6.NS.C.8	SR	Determine the location of a point on a coordinate plane based on its distance from a given point.	C
12	*Statistics and Probability*	6.SP.B.5	SA	Identify the number of observations on a histogram.	37
13	*Ratios and Proportional Relationships*	6.RP.A.3	CR	Use reasoning about percentages and unit rates to solve a multi-step, real-world problem.	
14	*The Number System*	6.NS.A.1	SR	Solve a problem involving the division of two fractions.	C
15	*Geometry*	6.G.A.3	SA	Find the length of the side of a polygon by finding the distance between points on a coordinate plane.	4
16	*The Number System*	6.NS.C.7	SA	Identify a rational number that is within a range of other rational numbers.	$-4 < n < 0$
17	*Expressions and Equations*	6.EE.C.9	SR	Interpret the relationship between two variables and use the relationship to create an equation.	*see page 7*
18	*Statistics and Probability*	6.SP.A.2	SA	Given a set of data, identify the median and the range.	*see page 7*

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer (SR)**
19	*Geometry*	6.G.A.2	SR	Determine the dimensions and the volume of a right rectangular prism by using a cube with a fractional edge length.	*see page 7*
20	*Statistics and Probability*	6.SP.A.1	SR	Identify multiple statistical questions.	B,D,E

* 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 6–7 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 6 Mathematics
Spring 2025 Computer-Based Unreleased Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
21	*Statistics and Probability*	6.SP.A.2	SR	Analyze a dot plot using median, mode, and range.
22	*The Number System*	6.NS.C.8	SR	Use absolute value to determine the distance between two points on a coordinate plane given a mathematical context.
23	*Geometry*	6.G.A.3	CR	Solve problems on a coordinate plane by plotting points, finding the distance between points, and calculating the areas of figures graphed on the coordinate plane.
24	*Expressions and Equations*	6.EE.B.8	SR	Identify an inequality that represents a condition in a real-world problem.
25	*Ratios and Proportional Relationships*	6.RP.A.3	SR	Use rate reasoning to solve a real-world problem involving fractions.
26	*Expressions and Equations*	6.EE.A.3	SR	Use the distributive property to identify an equivalent expression within a real- world context.
27	*Expressions and Equations*	6.EE.B.7	SA	Determine the value of the dependent variable, given the value of the independent variable in a real-world context.
28	*Statistics and Probability*	6.SP.B.4	SR	Identify the box plot that matches a set of data and identify a line plot that represents the data.
29	*Expressions and Equations*	6.EE.A.4	SR	Determine which expression is equivalent to a given expression.
30	*Ratios and Proportional Relationships*	6.RP.A.2	SR	Identify three unit rates in a real-world context.
31	*Ratios and Proportional Relationships*	6.RP.A.3	SR	Use a given rate to determine an equivalent rate in a real-world context.
32	*Expressions and Equations*	6.EE.C.9	SR	Analyze the relationship between the variables in an equation that represents a given real-world context.
33	*Geometry*	6.G.A.1	SR	Find the area of a figure by decomposing it into rectangles and triangles.
34	*The Number System*	6.NS.B.3	CR	Solve a real-world problem by adding, subtracting, multiplying, and dividing decimals.
35	*Ratios and Proportional Relationships*	6.RP.A.1	SR	Determine which statement describes a given ratio relationship in a real-world context.
36	*Expressions and Equations*	6.EE.A.3	SR	Use properties of operations to simplify and find an equivalent expression.
37	*Ratios and Proportional Relationships*	6.RP.A.2	SR	Determine which ratios are equivalent to a given unit rate.
38	*Expressions and*	6.EE.A.2	SR	Identify a mathematical expression that models a given real-world

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
	Equations			situation.
39	*Expressions and Equations*	6.EE.A.4	SR	Determine which expressions are equivalent to a given expression.
40	*Statistics and Probability*	6.SP.B.5	SR	Determine which statements correctly describe data represented in a dot plot.

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

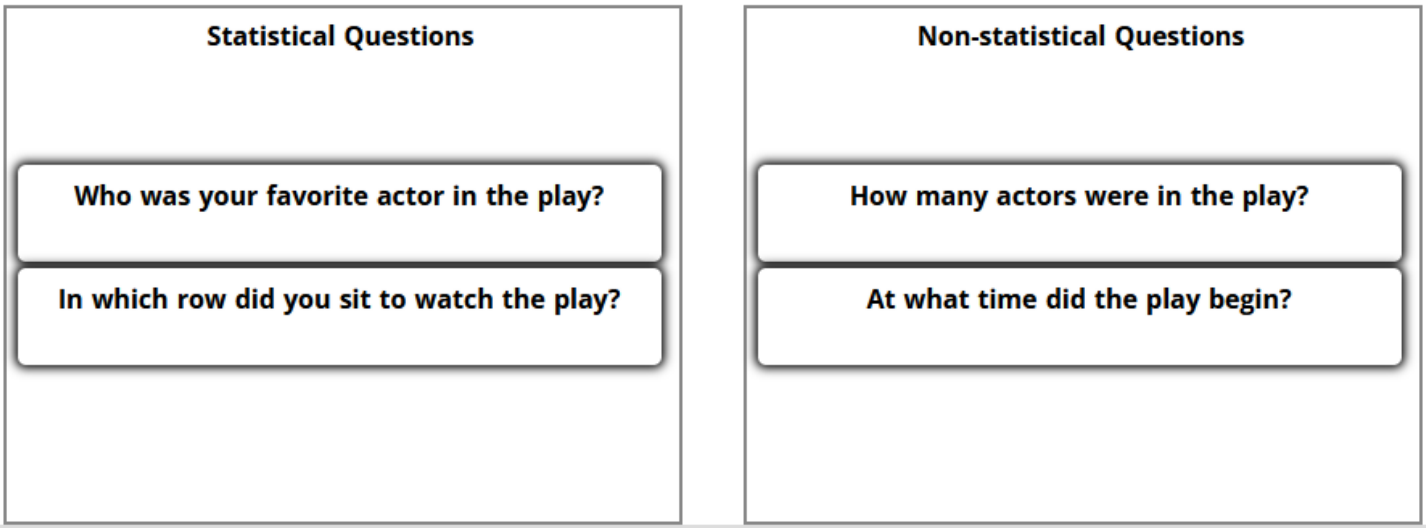
Correct Answer for CBT Item #3: Technology-Enhanced Item

Relationship	5:8	3:5	8:3
green marbles to yellow marbles	○	◉	○
yellow marbles to all marbles	◉	○	○
all marbles to green marbles	○	○	◉

Correct Answer for CBT Item #5: Technology-Enhanced Item

Division Equation	True	False
$87 \div 3 = 27$	○	◉
$924 \div 6 = 154$	◉	○
$870 \div 15 = 58$	◉	○

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



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

nine [less than] the [product] of fifteen and n

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

Part A

Based on the equation, the cyclist could ride 12 mile(s) in 1 hour and 30 miles in 2.5 hours.

Part B

$y = 14.5x$

Correct Answer for CBT Item #18: Technology-Enhanced Item

The median of the data is equal to 7.

The range of the data is equal to 8.

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

Statement	True	False
The length of the rectangular prism is $\frac{1}{3}$ inch.	○	◉
The width of the rectangular prism is $\frac{4}{3}$ inches.	◉	○
The height of the rectangular prism is 1 inch.	◉	○
The volume of the rectangular prism is $\frac{20}{3}$ cubic inches.	○	◉