MASSACHUSETTS
Department of Elementary
and Secondary Education

Release of MCAS Test Information from the March 2025 ELA and Math Retests

May 2025
Massachusetts Department of Elementary and Secondary Education

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and Secondary Education

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

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Document Purpose and Structure

Purpose

The purpose of this document is to share with educators and the public information regarding the March 2025 MCAS English Language Arts (ELA) and Mathematics retests, including the reporting category and standard associated with each item. The Department does not currently release items from the March retests. All items continue to be released for the spring grade 10 tests.

Structure

Chapters II and III of this document contain, respectively, information for the March 2025 ELA and Mathematics retests. Each of these chapters has two sections.

The **first section** provides a brief overview of the retest, including test format and item types. The Mathematics Reference Sheet used by students during MCAS Mathematics test sessions appears at the end of the first section of the Mathematics chapter.

The **second section** of each chapter are tables that cross-reference each item on the computer-based test and the paper-based test with its MCAS reporting category and with the *Framework* standard it assesses. The tables show how the items on the test assess standards in the 2017 frameworks.

II. English Language Arts Retest

English Language Arts Retest

The March 2025 English Language Arts retest 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 computer-based and paper-based versions of the ELA retest were the same. 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 ELA content and assessed the same standard as the technology-enhanced item.

Test Sessions and Content Overview

The ELA retest was made up of two separate test sessions. Each session included reading passages, followed by selected-response and essay 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 ELA retest was based on grades 6–12 learning standards in three content strands of the *Massachusetts Curriculum Framework for English Language Arts and Literacy* (2017), listed below.

- Reading
- Writing
- Language

The Massachusetts Curriculum Framework for English Language Arts and Literacy is available on the Department website at www.doe.mass.edu/frameworks/current.html.

ELA test results are reported under three MCAS reporting categories, which are identical to the three framework content strands listed above.

The tables at the end of this chapter provide information about each item from both the computer-based and paper-based tests, including reporting category, standard(s) covered, item type, and item description.

Reference Materials

During both ELA 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 other reference materials were allowed during any ELA test session.

March 2025 English Language Arts Retest
Computer-Based Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Reading*	RL.9-10.3	SR	Identify a difference between characters in an excerpt.
2	*Reading*	RL.9-10.5	SR	Determine the effect of character interactions in a specific section of an excerpt.
3	*Reading*	RL.9-10.5	SR	Analyze how a specific paragraph in an excerpt contributes to the overall structure.
4	*Reading*	RL.9-10.3	SR	Determine the effect on characterization of a specific paragraph in an excerpt.
5	*Reading*	RL.9-10.5	SR	Identify the moods created by a specific sentence in an excerpt.
6	*Reading*	RL.9-10.1	SR	Select evidence to support an inference about an idea presented in an excerpt.
7	*Language*	L.9-10.2	SR	Identify the purpose of colons in specific sentences from two excerpts on similar topics.
8	*Language*	L.9-10.4	SR	Determine what is suggested by an unfamiliar word used in two excerpts on similar topics.
9	*Reading*	RL.9-10.2	SR	Compare the perspectives of characters in two excerpts on similar topics and select evidence from both excerpts to support the comparison.
10	*Language, Writing*	L.9-10.1, L.9-10.2, L.9-10.3, W.9-10.2, W.9-10.4	ES	Write an essay that compares and contrasts the way authors develop conflict in two excerpts on similar topics; use details from both excerpts to develop the essay.
11	*Reading*	RL.9-10.4	SR	Identify the purpose of imagery in a specific paragraph of an excerpt.
12	*Reading*	RL.9-10.3	SR	Determine what a specific paragraph of an excerpt reveals about a character.
13	*Reading*	RL.9-10.4	SR	Determine the purpose of figurative language in a specific paragraph of an excerpt.
14	*Reading*	RL.9-10.1	SR	Make an inference about a character based on specific details in an excerpt.
15	*Reading*	RL.9-10.3	SR	Identify the effect of an experience on a character in a specific paragraph of an excerpt.
16	*Reading*	RI.9-10.3	SR	Determine what a specific paragraph of an article suggests.
17	*Reading*	RI.9-10.8	SR	Determine the idea developed by a specific paragraph of an article.
18	*Language*	L.9-10.4	SR	Identify a word that best replaces a word used in a sentence of an article.
19	*Reading*	RI.9-10.1	SR	Determine which idea is supported by a specific event in a paragraph of an article.
20	*Reading*	RI.9-10.5	SR	Determine the purpose of two specific paragraphs in two articles on similar topics.
21	*Reading*	RI.9-10.6	SR	Determine the reason two authors make a specific statement in two articles on similar topics.
22	*Reading*	RI.9-10.2	SR	Determine whether specific sentences from two articles on similar topics describe a problem or a solution.
23	*Reading*	RI.9-10.4	SR	Determine whether specific sentences from two articles on similar topics develop one tone or another tone.
24	*Language, Writing*	L.9-10.1, L.9-10.2, L.9-10.3, W.9-10.1, W.9-10.4	ES	Write an essay to be presented to a local legislator arguing for a specific community action based on two articles on similar topics; use information from both articles to develop the essay.

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
25	*Reading*	RL.9-10.3	SR	Determine what is suggested about a character based on a sentence from a specific paragraph of a passage.
26	*Reading*	RL.9-10.4	SR	Determine what a specific phrase in a sentence of a passage suggests about certain practices.
27	*Reading*	RL.9-10.3	SR	Determine how an author views an object based on a specific paragraph of a passage.
28	*Reading*	RL.9-10.4	SR	Determine what is suggested by a sentence from a specific paragraph of a passage.
29	*Reading*	RL.9-10.1	SR	Identify a detail from a passage that supports a specific inference based on two paragraphs of the passage.
30	*Reading*	RL.9-10.6	SR	Determine what the author suggests about a practice based on a passage.
31	*Reading*	RL.9-10.2	SR	Determine the theme developed in a specific sentence of a passage and identify a detail from another passage that develops a similar theme.
32	*Language*	L.9-10.3	SR	Determine the purpose of dashes in two passages on similar topics.

* ELA item types are selected-response (SR) and essay (ES).

March 2025 English Language Arts Retest
Paper-Based Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Reading*	RL.9-10.3	SR	Identify a difference between characters in an excerpt.
2	*Reading*	RL.9-10.5	SR	Determine the effect of character interactions in a specific section of an excerpt.
3	*Reading*	RL.9-10.5	SR	Analyze how a specific paragraph in an excerpt contributes to the overall structure.
4	*Reading*	RL.9-10.3	SR	Determine the effect on characterization of a specific paragraph in an excerpt.
5	*Reading*	RL.9-10.5	SR	Identify the moods created by a specific sentence in an excerpt.
6	*Reading*	RL.9-10.1	SR	Select evidence to support an inference about an idea presented in an excerpt.
7	*Language*	L.9-10.2	SR	Identify the purpose of colons in specific sentences from two excerpts on similar topics.
8	*Language*	L.9-10.4	SR	Determine what is suggested by an unfamiliar word used in two excerpts on similar topics.
9	*Reading*	RL.9-10.2	SR	Compare the perspectives of characters in two excerpts on similar topics and select evidence from both excerpts to support the comparison.
10	*Language, Writing*	L.9-10.1, L.9-10.2, L.9-10.3, W.9-10.2, W.9-10.4	ES	Write an essay that compares and contrasts the way authors develop conflict in two excerpts on similar topics; use details from both excerpts to develop the essay.
11	*Reading*	RL.9-10.4	SR	Identify the purpose of imagery in a specific paragraph of an excerpt.
12	*Reading*	RL.9-10.3	SR	Determine what a specific paragraph of an excerpt reveals about a character.
13	*Reading*	RL.9-10.4	SR	Determine the purpose of figurative language in a specific paragraph of an excerpt.
14	*Reading*	RL.9-10.1	SR	Make an inference about a character based on specific details in an excerpt.
15	*Reading*	RL.9-10.3	SR	Identify the effect of an experience on a character in a specific paragraph of an excerpt.
16	*Reading*	RI.9-10.3	SR	Determine what a specific paragraph of an article suggests.
17	*Reading*	RI.9-10.8	SR	Determine the idea developed by a specific paragraph of an article.
18	*Language*	L.9-10.4	SR	Identify a word that best replaces a word used in a sentence of an article.
19	*Reading*	RI.9-10.1	SR	Determine which idea is supported by a specific event in a paragraph of an article.
20	*Reading*	RI.9-10.5	SR	Determine the purpose of two specific paragraphs in two articles on similar topics.
21	*Reading*	RI.9-10.6	SR	Determine the reason two authors make a specific statement in two articles on similar topics.
22	*Reading*	RI.9-10.2	SR	Determine whether specific sentences from two articles on similar topics describe a problem or a solution.
23	*Reading*	RI.9-10.4	SR	Determine whether specific sentences from two articles on similar topics develop one tone or another tone.
24	*Language, Writing*	L.9-10.1, L.9-10.2, L.9-10.3, W.9-10.1, W.9-10.4	ES	Write an essay to be presented to a local legislator arguing for a specific community action based on two articles on similar topics; use information from both articles to develop the essay.

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
25	*Reading*	RL.9-10.3	SR	Determine what is suggested about a character based on a sentence from a specific paragraph of a passage.
26	*Reading*	RL.9-10.4	SR	Determine what a specific phrase in a sentence of a passage suggests about certain practices.
27	*Reading*	RL.9-10.3	SR	Determine how an author views an object based on a specific paragraph of a passage.
28	*Reading*	RL.9-10.4	SR	Determine what is suggested by a sentence from a specific paragraph of a passage.
29	*Reading*	RL.9-10.1	SR	Identify a detail from a passage that supports a specific inference based on two paragraphs of the passage.
30	*Reading*	RL.9-10.6	SR	Determine what the author suggests about a practice based on a passage.
31	*Reading*	RL.9-10.2	SR	Determine the theme developed in a specific sentence of a passage and identify a detail from another passage that develops a similar theme.
32	*Language*	L.9-10.3	SR	Determine the purpose of dashes in two passages on similar topics.

* ELA item types are selected-response (SR) and essay (ES).

III. Mathematics Retest

Mathematics Retest

The March 2025 Mathematics retest 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 computer-based and paper-based versions of the Mathematics retest were the same. 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.

Test Sessions and Content Overview

The Mathematics retest 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 Mathematics retest was based on high school standards in the *Massachusetts Curriculum Framework for Mathematics* (2017). The standards in the 2017 framework are organized under the five major conceptual categories listed below.

- Number and Quantity
- Algebra
- Functions
- Geometry
- Statistics and Probability

The Mathematics retest assessed standards that overlap between the Model Algebra I/Model Geometry and Model Mathematics I/Model Mathematics II courses. The *Massachusetts Curriculum Framework for Mathematics* is available on the Department website at www.doe.mass.edu/frameworks/current.html.

Mathematics test results for grade 10 are reported under four MCAS reporting categories, which are based on the five framework conceptual categories listed above.

The tables at the end of this chapter provide information about each item from both the computer-based and paper-based tests, including reporting category, standard covered, item type, and item description.

Spanish-Language Edition

Since approximately 55% of English learner students in Massachusetts public schools are native Spanish speakers, a Spanish-language edition of the Mathematics retest was made available to eligible Spanish-speaking students. The computer-based version of the Spanish-language edition presented the Spanish translation above the English text for each item. The booklets for the paper-based version of the Spanish-language edition were issued in side-by-side English/Spanish format: pages on the left side of each booklet presented items in Spanish; pages on the right side presented the same items in English.

Reference Materials and Tools

Each student taking the Mathematics retest was provided with a grade 10 Mathematics Reference Sheet. A copy of the reference sheet can be found on the next page of this document.

During Session 2, each student had sole access to a calculator. Calculator use was not allowed during Session 1.

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 other reference tools or materials were allowed.

Massachusetts Comprehensive Assessment System
Grade 10 Mathematics Reference Sheet

MASSACHUSETTS Department of Elementary and Secondary Education

CONVERSIONS

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 gallon ≈ 3.785 liters
1 liter ≈ 0.264 gallon
1 liter = 1000 cubic centimeters

1 inch = 2.54 centimeters
1 meter ≈ 39.37 inches
1 mile = 5280 feet
1 mile = 1760 yards
1 mile ≈ 1.609 kilometers
1 kilometer ≈ 0.62 mile

1 pound = 16 ounces
1 pound ≈ 0.454 kilogram
1 kilogram ≈ 2.2 pounds
1 ton = 2000 pounds

AREA (A) FORMULAS

square . . . . . $A = s^2$
rectangle . . . . . $A = lw$
parallelogram . . . . . $A = bh$
triangle . . . . . $A = \frac{1}{2}bh$
trapezoid . . . . . $A = \frac{1}{2}h(b_1 + b_2)$
circle . . . . . $A = \pi r^2$

TOTAL SURFACE AREA (SA) FORMULAS

cube . . . . . $SA = 6s^2$
right square pyramid . . . . $SA = s^2 + 2s\ell$
(ℓ = slant height)
right rectangular prism . . $SA = 2(lw) + 2(hw) + 2(lh)$

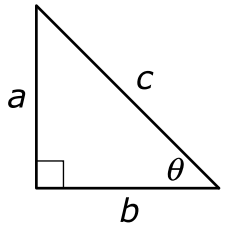
VOLUME (V) FORMULAS

cube . . . . . $V = s^3$
(s = length of an edge)
prism . . . . . $V = Bh$
cylinder . . . . . $V = \pi r^2 h$
cone . . . . . $V = \frac{1}{3}\pi r^2 h$
pyramid . . . . . $V = \frac{1}{3}Bh$
sphere . . . . . $V = \frac{4}{3}\pi r^3$

CIRCLE FORMULAS

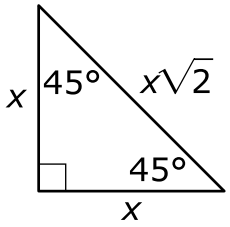
pi . . . . . $\pi \approx 3.14$
circumference . . . . $C = 2\pi r$ OR $C = \pi d$
area . . . . . $A = \pi r^2$

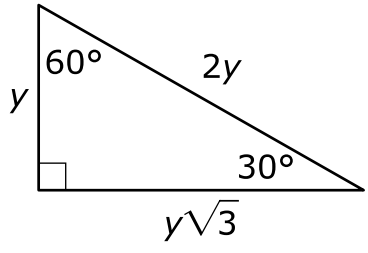
RIGHT TRIANGLES



Pythagorean Theorem
$a^2 + b^2 = c^2$
Trigonometric Ratios
$\sin\theta = \frac{a}{c}$
$\cos\theta = \frac{b}{c}$
$\tan\theta = \frac{a}{b}$

SPECIAL RIGHT TRIANGLES





March 2025 Mathematics Retest
Computer-Based Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Geometry*	G-CO.C.9	SR	Use theorems about lines and angles to find the measure of an angle in a geometric diagram.
2	*Geometry*	G-C.A.2	SR	Determine the measure of an arc in a circle that is divided into congruent sections.
3	*Algebra and Functions*	A-CED.A.2	SA	Graph a line on a coordinate plane, given its equation.
4	*Algebra and Functions*	A-REI.B.4	SR	Identify one of the solutions of a quadratic equation in one variable.
5	*Geometry*	G-C.A.1	SR	Analyze the similarity of two circles graphed on a coordinate plane, given their equations.
6	*Number and Quantity*	N-RN.A.2	CR	Evaluate a variety of expressions that represent the areas of two-dimensional figures and the volumes of three-dimensional figures.
7	*Algebra and Functions*	A-APR.A.1	SR	Add two binomials to create an equivalent expression.
8	*Number and Quantity*	N-RN.A.1	SR	Use properties of exponents to evaluate exponential expressions that can be rewritten using the same base, and order them by their value.
9	*Geometry*	G-SRT.C.6	SR	Calculate the area of a square given the length of its diagonal.
10	*Algebra and Functions*	F-LE.A.1	SR	Identify situations that can be represented by a linear function.
11	*Algebra and Functions*	A-SSE.A.2	SA	Use the structure of an expression to evaluate a product and a quadratic expression that has the expression as a factor.
12	*Algebra and Functions*	F-IF.C.8	SR	Rewrite a linear equation given in standard form to determine the rate of change of the function it defines.
13	*Statistics and Probability*	S-ID.A.3	CR	Interpret data displayed in a line plot, calculate the median and the mean, and describe how a change in the data affects these measures.
14	*Algebra and Functions*	F-LE.B.5	SR	Interpret the parameters of a linear function in terms of a real-world situation.
15	*Number and Quantity*	N-Q.A.2	SA	Estimate a unit rate based on a real-world situation.
16	*Geometry*	G-GPE.A.1	SR	Identify an equation of a circle graphed on a coordinate plane.
17	*Algebra and Functions*	A-REI.C.6	SA	Determine the x-value of the solution of a system of linear equations.
18	*Statistics and Probability*	S-ID.C.8	SR	Describe the correlation of data displayed in a scatter plot and interpret the correlation coefficient of related data displayed in a different scatter plot.
19	*Algebra and Functions*	A-REI.B.3	SR	Solve a one-variable linear equation.
20	*Geometry*	G-GPE.B.5	SR	Identify an equation of the line perpendicular to a given line and that passes through a given point.
21	*Algebra and Functions*	A-REI.D.10	SR	Identify the x-coordinate of a point that lies on the graph of a linear equation.
22	*Geometry*	G-SRT.A.2	SR	Given similar triangles, identify a true proportion equation.
23	*Statistics and Probability*	S-ID.B.5	SR	Determine a relative frequency from a two-way frequency table based on real-world data.
24	*Geometry*	G-GMD.A.3	SR	Calculate the volume of a sphere given its diameter.
25	*Statistics and Probability*	S-CP.A.5	SR	Analyze the independence of events based on a description and calculate a probability based on this analysis.
26	*Geometry*	G-CO.D.13	SR	Identify properties of a square inscribed in a circle based on a description of its construction.
27	*Algebra and Functions*	F-BF.A.1	CR	Create and interpret exponential functions from a description of a relationship and from a table.

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
28	*Geometry*	G-CO.A.1	SR	Identify a characteristic of two parallel lines.
29	*Algebra and Functions*	F-BF.B.3	SR	Describe the effect of a translation of a quadratic function graphed on a coordinate plane.
30	*Geometry*	G-GMD.A.1	SR	Compare measurements of two circles given the proportionality of their diameters.
31	*Number and Quantity*	N-Q.A.3	SR	Describe the effects of rounding on a measurement in a real-world situation.
32	*Number and Quantity*	N-Q.A.1	SA	Use dimensional analysis to compute rates involving time and money.
33	*Algebra and Functions*	F-IF.A.2	SR	Given a quadratic function that represents a real-world situation, determine the element of the domain that produces a given output.
34	*Geometry*	G-GPE.B.4	CR	Use slope to determine whether two line segments graphed on a coordinate plane are perpendicular, and to determine the coordinates of a point that lies on a line parallel to a given line.
35	*Geometry*	G-CO.C.10	SA	Determine the relationship between the base angles of an isosceles triangle and calculate the measure of the vertex angle.
36	*Geometry*	G-CO.B.6	SR	Determine whether various transformations performed on a triangle will result in a congruent image.
37	*Statistics and Probability*	S-CP.B.7	SR	Apply the addition rule to compute a probability in a real-world situation.
38	*Algebra and Functions*	A-CED.A.3	SR	Create and analyze a system of equations from a context.
39	*Geometry*	G-SRT.B.4	SR	Use theorems about triangles to compare similar triangles and to calculate unknown side lengths.
40	*Algebra and Functions*	A-REI.A.1	SR	Identify the mathematical property used to justify a step in the solution of an equation.
41	*Geometry*	G-CO.A.2	SR	Identify the coordinates of the image of a point on a coordinate plane, reflected over the x-axis.
42	*Algebra and Functions*	F-IF.B.5	SR	Describe the range of a quadratic function within a context based on a graph of the function.

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

March 2025 Mathematics Retest
Paper-Based Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Geometry*	G-CO.C.9	SR	Use theorems about lines and angles to find the measure of an angle in a geometric diagram.
2	*Geometry*	G-C.A.2	SR	Determine the measure of an arc in a circle that is divided into congruent sections.
3	*Algebra and Functions*	A-CED.A.2	SR	Identify a line on a coordinate plane, given its equation.
4	*Algebra and Functions*	A-REI.B.4	SR	Identify one of the solutions of a quadratic equation in one variable.
5	*Geometry*	G-C.A.1	SR	Analyze the similarity of two circles graphed on a coordinate plane, given their equations.
6	*Number and Quantity*	N-RN.A.2	CR	Evaluate a variety of expressions that represent the areas of two-dimensional figures and the volumes of three-dimensional figures.
7	*Algebra and Functions*	A-APR.A.1	SR	Add two binomials to create an equivalent expression.
8	*Number and Quantity*	N-RN.A.1	SR	Use properties of exponents to evaluate exponential expressions that can be rewritten using the same base, and order them by their value.
9	*Geometry*	G-SRT.C.6	SR	Calculate the area of a square given the length of its diagonal.
10	*Algebra and Functions*	F-LE.A.1	SR	Identify situations that can be represented by a linear function.
11	*Algebra and Functions*	A-SSE.A.2	SA	Use the structure of an expression to evaluate a product and a quadratic expression that has the expression as a factor.
12	*Algebra and Functions*	F-IF.C.8	SR	Rewrite a linear equation given in standard form to determine the rate of change of the function it defines.
13	*Statistics and Probability*	S-ID.A.3	CR	Interpret data displayed in a line plot, calculate the median and the mean, and describe how a change in the data affects these measures.
14	*Algebra and Functions*	F-LE.B.5	SR	Interpret the parameters of a linear function in terms of a real-world situation.
15	*Number and Quantity*	N-Q.A.2	SA	Estimate a unit rate based on a real-world situation.
16	*Geometry*	G-GPE.A.1	SR	Identify an equation of a circle graphed on a coordinate plane.
17	*Algebra and Functions*	A-REI.C.6	SA	Determine the x-value of the solution of a system of linear equations.
18	*Statistics and Probability*	S-ID.C.8	SR	Describe the correlation of data displayed in a scatter plot and interpret the correlation coefficient of related data displayed in a different scatter plot.
19	*Algebra and Functions*	A-REI.B.3	SR	Solve a one-variable linear equation.
20	*Geometry*	G-GPE.B.5	SR	Identify an equation of the line perpendicular to a given line and that passes through a given point.
21	*Algebra and Functions*	A-REI.D.10	SR	Identify the x-coordinate of a point that lies on the graph of a linear equation.
22	*Geometry*	G-SRT.A.2	SR	Given similar triangles, identify a true proportion equation.
23	*Statistics and Probability*	S-ID.B.5	SR	Determine a relative frequency from a two-way frequency table based on real-world data.
24	*Geometry*	G-GMD.A.3	SR	Calculate the volume of a sphere given its diameter.
25	*Statistics and Probability*	S-CP.A.5	SR	Analyze the independence of events based on a description and calculate a probability based on this analysis.
26	*Geometry*	G-CO.D.13	SR	Identify properties of a square inscribed in a circle based on a description of its construction.
27	*Algebra and Functions*	F-BF.A.1	CR	Create and interpret exponential functions from a description of a relationship and from a table.

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
28	*Geometry*	G-CO.A.1	SR	Identify a characteristic of two parallel lines.
29	*Algebra and Functions*	F-BF.B.3	SR	Describe the effect of a translation of a quadratic function graphed on a coordinate plane.
30	*Geometry*	G-GMD.A.1	SR	Compare measurements of two circles given the proportionality of their diameters.
31	*Number and Quantity*	N-Q.A.3	SR	Describe the effects of rounding on a measurement in a real-world situation.
32	*Number and Quantity*	N-Q.A.1	SA	Use dimensional analysis to compute rates involving time and money.
33	*Algebra and Functions*	F-IF.A.2	SR	Given a quadratic function that represents a real-world situation, determine the element of the domain that produces a given output.
34	*Geometry*	G-GPE.B.4	CR	Use slope to determine whether two line segments graphed on a coordinate plane are perpendicular, and to determine the coordinates of a point that lies on a line parallel to a given line.
35	*Geometry*	G-CO.C.10	SA	Determine the relationship between the base angles of an isosceles triangle and calculate the measure of the vertex angle.
36	*Geometry*	G-CO.B.6	SR	Identify a transformation that, if applied to a triangle, would not result in a congruent image.
37	*Statistics and Probability*	S-CP.B.7	SR	Apply the addition rule to compute a probability in a real-world situation.
38	*Algebra and Functions*	A-CED.A.3	SR	Create and analyze a system of equations from a context.
39	*Geometry*	G-SRT.B.4	SR	Use theorems about triangles to compare similar triangles and to calculate unknown side lengths.
40	*Algebra and Functions*	A-REI.A.1	SR	Identify the mathematical property used to justify a step in the solution of an equation.
41	*Geometry*	G-CO.A.2	SR	Identify the coordinates of the image of a point on a coordinate plane, reflected over the x-axis.
42	*Algebra and Functions*	F-IF.B.5	SR	Describe the range of a quadratic function within a context based on a graph of the function.

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