MASSACHUSETTS
Department of Elementary
and Secondary Education

Release of November 2024 MCAS Test Information from the High School ELA and Math Retests

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Massachusetts Department of Elementary and Secondary Education

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and Secondary Education

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I. Document Purpose and Structure

Document Purpose and Structure

Purpose

The purpose of this document is to share with educators and the public information regarding the November 2024 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 November 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 November 2024 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 November 2024 English Language Arts (ELA) 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.

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.

A Note about Testing Mode

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.

Reference Materials

During both ELA test sessions, the use of bilingual word-to-word dictionaries was allowed for current and former English learner students only. No other reference materials were allowed during any ELA test session.

November 2024 English Language Arts Retest
Computer-Based Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Reading*	RL.9-10.1	SR	Identify a phrase that supports an inference about characters in an excerpt.
2	*Reading*	RL.9-10.1	SR	Determine which detail from an excerpt best supports a central idea of the excerpt.
3	*Language*	L.9-10.4	SR	Determine which phrase from an excerpt provides a context clue for understanding a word.
4	*Reading*	RL.9-10.2	SR	Determine how a specific paragraph develops a key idea in an excerpt.
5	*Reading*	RL.9-10.5	SR	Determine which sentence from an excerpt foreshadows a change in mood.
6	*Language*	L.9-10.4	SR	Determine the meaning of an unfamiliar word based on context.
7	*Reading*	RL.9-10.6	SR	Make an inference about characters described in an excerpt and identify evidence from the excerpt to support the inference.
8	*Reading*	RL.9-10.2	SR	Identify details from an excerpt that support a central idea of the excerpt.
9	*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 explaining how an author portrays a specific idea in an excerpt; use details from the excerpt to develop the essay.
10	*Reading*	RL.9-10.4	SR	Determine the mood established in lines from a poem.
11	*Reading*	RL.9-10.6	SR	Identify a quotation from a poem that shows a character's point of view.
12	*Reading*	RL.9-10.5	SR	Determine the purpose of the headings in a poem.
13	*Reading*	RL.9-10.2	SR	Determine a theme developed in a poem; identify a quotation from the poem that supports the theme.
14	*Reading*	RI.9-10.6	SR	Determine the purpose of an anecdote in specific paragraphs of an article.
15	*Reading*	RI.9-10.4	SR	Determine the effect of an author's use of a phrase based on a paragraph of an article.
16	*Language*	L.9-10.2	SR	Determine the purpose of semicolons in a sentence from an article.
17	*Language*	L.9-10.4	SR	Determine the meaning of an unknown word based on its use in two sentences from an article.
18	*Reading*	RI.9-10.7	SR	Determine how a diagram in an article complements ideas developed in a paragraph of another article on a similar topic.
19	*Reading*	RI.9-10.2	SR	Determine which idea is developed in sentences from two articles on similar topics.
20	*Reading*	RI.9-10.2	SR	Determine the central idea expressed in a sentence from an article; identify a sentence from another article on a similar topic that conveys a similar idea.
21	*Reading*	RI.9-10.6	SR	Determine the reasons that the authors of two articles on similar topics reference a similar detail.
22	*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 arguing for an action based on two articles on similar topics; use information from both articles to develop the essay.
23	*Reading*	RL.9-10.3	SR	Analyze an author’s development of complex characters within an excerpt.

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
24	*Reading*	RL.9-10.2	SR	Identify how a concept in an excerpt contributes to the development of a central idea in the excerpt.
25	*Language*	L.9-10.4	SR	Determine the meaning of an unknown word in a paragraph using context.
26	*Reading*	RL.9-10.4	SR	Determine the effect of specific paragraphs on meaning in an excerpt.
27	*Reading*	RL.9-10.3	SR	Analyze an author's use of details to symbolize a specific aspect of characterization.
28	*Reading*	RL.9-10.3	SR	Determine a contrast between two characters in an excerpt.
29	*Reading*	RL.9-10.3	SR	Make an inference about a character in an excerpt and identify a quotation that supports the inference.
30	*Reading*	RL.9-10.2	SR	Analyze the development of a central idea in an excerpt.

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

November 2024 English Language Arts Retest
Paper-Based Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Reading*	RL.9-10.1	SR	Identify a phrase that supports an inference about characters in an excerpt.
2	*Reading*	RL.9-10.1	SR	Determine which detail from an excerpt best supports a central idea of the excerpt.
3	*Language*	L.9-10.4	SR	Determine which phrase from an excerpt provides a context clue for understanding a word.
4	*Reading*	RL.9-10.2	SR	Determine how a specific paragraph develops a key idea in an excerpt.
5	*Reading*	RL.9-10.5	SR	Determine which sentence from an excerpt foreshadows a change in mood.
6	*Language*	L.9-10.4	SR	Determine the meaning of an unfamiliar word based on context.
7	*Reading*	RL.9-10.6	SR	Make an inference about characters described in an excerpt and identify evidence from the excerpt to support the inference.
8	*Reading*	RL.9-10.2	SR	Identify details from an excerpt that support a central idea of the excerpt.
9	*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 explaining how an author portrays a specific idea in an excerpt; use details from the excerpt to develop the essay.
10	*Reading*	RL.9-10.4	SR	Determine the mood established in lines from a poem.
11	*Reading*	RL.9-10.6	SR	Identify a quotation from a poem that shows a character's point of view.
12	*Reading*	RL.9-10.5	SR	Determine the purpose of the headings in a poem.
13	*Reading*	RL.9-10.2	SR	Determine a theme developed in a poem; identify a quotation from the poem that supports the theme.
14	*Reading*	RI.9-10.6	SR	Determine the purpose of an anecdote in specific paragraphs of an article.
15	*Reading*	RI.9-10.4	SR	Determine the effect of an author's use of a phrase based on a paragraph of an article.
16	*Language*	L.9-10.2	SR	Determine the purpose of semicolons in a sentence from an article.
17	*Language*	L.9-10.4	SR	Determine the meaning of an unknown word based on its use in two sentences from an article.
18	*Reading*	RI.9-10.7	SR	Determine how a diagram in an article complements ideas developed in a paragraph of another article on a similar topic.
19	*Reading*	RI.9-10.2	SR	Determine which idea is developed in sentences from two articles on similar topics.
20	*Reading*	RI.9-10.2	SR	Determine the central idea expressed in a sentence from an article; identify a sentence from another article on a similar topic that conveys a similar idea.
21	*Reading*	RI.9-10.6	SR	Determine the reasons that the authors of two articles on similar topics reference a similar detail.
22	*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 arguing for an action based on two articles on similar topics; use information from both articles to develop the essay.
23	*Reading*	RL.9-10.3	SR	Analyze an author’s development of complex characters within an excerpt.

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
24	*Reading*	RL.9-10.2	SR	Identify how a concept in an excerpt contributes to the development of a central idea in the excerpt.
25	*Language*	L.9-10.4	SR	Determine the meaning of an unknown word in a paragraph using context.
26	*Reading*	RL.9-10.4	SR	Determine the effect of specific paragraphs on meaning in an excerpt.
27	*Reading*	RL.9-10.3	SR	Analyze an author's use of details to symbolize a specific aspect of characterization.
28	*Reading*	RL.9-10.3	SR	Determine a contrast between two characters in an excerpt.
29	*Reading*	RL.9-10.3	SR	Make an inference about a character in an excerpt and identify a quotation that supports the inference.
30	*Reading*	RL.9-10.2	SR	Analyze the development of a central idea in an excerpt.

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

III. Mathematics Retest

Mathematics Retest

The November 2024 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.

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.

A Note about Testing Mode

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.

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 bilingual word-to-word dictionaries was allowed for current and former English learner students only. No other reference tools or materials were allowed.

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 . . $SA = 2(lw) + 2(hw) + 2(lh)$

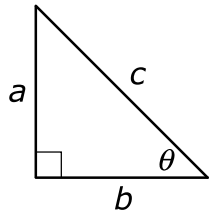
VOLUME (*V*) FORMULAS

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

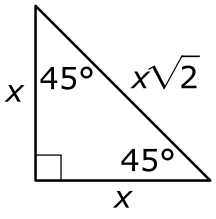
pi . . . . . $\pi \approx 3.14$
circumference . . . . $C = 2\pi r$ OR $C = \pi d$
area . . . . . $A = \pi r^2$

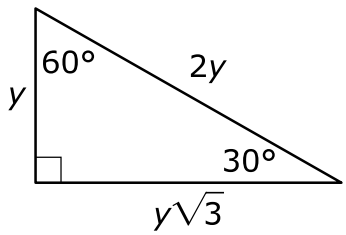
RIGHT TRIANGLES



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





November 2024 Mathematics Retest
Computer-Based Operational Items

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Geometry*	G-SRT.B.5	SR	Determine an unknown angle measure in a diagram with congruent quadrilaterals.
2	*Algebra and Functions*	F-IF.A.1	SR	Identify the graph of a function with a given range.
3	*Algebra and Functions*	A-APR.A.1	SR	Apply the Distributive Property and combine like terms to identify an equivalent polynomial expression.
4	*Geometry*	G-GMD.A.1	SR	Compare the volumes of a right cylinder and an oblique cylinder with congruent bases.
5	*Algebra and Functions*	F-BF.A.2	SR	Identify a function that can be used to represent an arithmetic sequence.
6	*Number and Quantity*	N-RN.A.2	CR	Evaluate a claim about rational exponents, rewrite an exponential expression as a radical expression, and evaluate a radical expression and another claim involving laws of exponents.
7	*Algebra and Functions*	A-REI.B.4	SR	Identify one solution of a quadratic equation in one variable.
8	*Statistics and Probability*	S-ID.A.3	SR	Explain the effect of removing an outlier on the measures of center of a data set.
9	*Geometry*	G-C.A.2	SA	Calculate the measure of an inscribed angle based on an arc measure.
10	*Algebra and Functions*	A-REI.C.6	SR	Identify the graph of a system of linear equations.
11	*Number and Quantity*	N-RN.A.1	SA	Identify a radical expression equivalent to a given exponential expression and determine the index that gives a radical expression a given value.
12	*Algebra and Functions*	A-REI.D.10	SA	Determine the *y*-coordinate of a specific point that lies on the graph of a linear equation.
13	*Geometry*	G-GPE.B.6	CR	Determine the coordinates of the midpoint of a line segment contained in a line on a coordinate plane and the coordinates of points on the line that partition segments of the line into given ratios.
14	*Algebra and Functions*	A-SSE.A.1	SR	Describe the roles of the parts of a quadratic expression and create a trinomial expression based on given conditions.
15	*Geometry*	G-GPE.B.5	SR	Identify the equation of a line perpendicular to a given line that passes through a given point.
16	*Number and Quantity*	N-RN.B.3	SR	Determine possible values of variables given the irrational nature of their sum and the rational nature of their product.
17	*Algebra and Functions*	A-SSE.B.3	SR	Rewrite a linear equation to determine the nature of the slope and *y*-intercept of the line it represents.
18	*Geometry*	G-CO.A.3	SR	Identify one-step transformations that carry a rectangle onto itself and a triangle onto itself.
19	*Algebra and Functions*	A-SSE.A.2	SR	Identify one factor of a difference of two squares expression.
20	*Statistics and Probability*	S-ID.C.9	SR	Determine whether the results of a study indicate causation.
21	*Algebra and Functions*	F-IF.C.7	SR	Identify the equation of an exponential function from its graph.
22	*Number and Quantity*	N-Q.A.1	SR	Use dimensional analysis and estimation strategies to solve a real-world problem.

CBT Item No.	Reporting Category	Standard	Item Type*	Item Description
23	*Geometry*	G-CO.A.1	SR	Identify conditions that describe perpendicular lines.
24	*Algebra and Functions*	A-REI.A.1	SR	Justify each step in the solution of a linear equation in one variable.
25	*Geometry*	G-GMD.A.3	SR	Calculate the volume of a cone based on a context.
26	*Algebra and Functions*	F-LE.A.3	SR	Compare the values of linear, exponential, and quadratic functions for an element of their domains.
27	*Statistics and Probability*	S-CP.A.4	CR	Complete a two-way frequency table and provide analysis of the table by computing probabilities.
28	*Geometry*	G-CO.D.12	SR	Describe the results of the construction of congruent line segments.
29	*Geometry*	G-SRT.A.1	SR	Describe the transformation of a line segment on a coordinate plane given the transformation rule.
30	*Algebra and Functions*	A-CED.A.1	SR	Create and solve a one-variable equation based on a real-world situation.
31	*Geometry*	G-GPE.B.7	SR	Calculate the area of a trapezoid graphed on a coordinate plane.
32	*Statistics and Probability*	S-ID.B.5	SA	Calculate relative frequencies from a two-way table based on a real-world situation.
33	*Geometry*	G-CO.C.9	SR	Identify information sufficient to prove that two lines cut by a transversal are parallel.
34	*Algebra and Functions*	F-LE.B.5	CR	Interpret the parameters in a linear function that describes a real-world situation and solve problems based on those parameters.
35	*Geometry*	G-CO.B.6	SR	Analyze the results of the transformation of a triangle on a coordinate plane and categorize the transformation as a specific rotation or reflection.
36	*Number and Quantity*	N-Q.A.3	SR	Use dimensional analysis and conventional rounding methods to solve a real-world problem.
37	*Statistics and Probability*	S-CP.B.7	SR	Identify an expression that properly applies the addition rule to calculate a real-world probability.
38	*Geometry*	G-CO.B.7	SR	Identify corresponding angles and sides of two congruent triangles.
39	*Algebra and Functions*	F-IF.B.6	SA	Compare values in a table of real-world data and calculate a change in value over a specified interval.
40	*Geometry*	G-C.A.1	SR	Identify a transformation that must be applied to a circle to prove it is similar to another circle.
41	*Algebra and Functions*	F-IF.B.5	SR	Identify the range of a linear function based on a description of the relationship.
42	*Geometry*	G-SRT.C.8	SR	Use the Pythagorean Theorem to calculate a length in a real-world situation.

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

November 2024 Mathematics Retest
Paper-Based Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
1	*Geometry*	G-SRT.B.5	SR	Determine an unknown angle measure in a diagram with congruent quadrilaterals.
2	*Algebra and Functions*	F-IF.A.1	SR	Identify the graph of a function with a given range.
3	*Algebra and Functions*	A-APR.A.1	SR	Apply the Distributive Property and combine like terms to identify an equivalent polynomial expression.
4	*Geometry*	G-GMD.A.1	SR	Compare the volumes of a right cylinder and an oblique cylinder with congruent bases.
5	*Algebra and Functions*	F-BF.A.2	SR	Identify a function that can be used to represent an arithmetic sequence.
6	*Number and Quantity*	N-RN.A.2	CR	Evaluate a claim about rational exponents, rewrite an exponential expression as a radical expression, and evaluate a radical expression and another claim involving laws of exponents.
7	*Algebra and Functions*	A-REI.B.4	SR	Identify one solution of a quadratic equation in one variable.
8	*Statistics and Probability*	S-ID.A.3	SR	Explain the effect of removing an outlier on the measures of center of a data set.
9	*Geometry*	G-C.A.2	SA	Calculate the measure of an inscribed angle based on an arc measure.
10	*Algebra and Functions*	A-REI.C.6	SR	Identify the graph of a system of linear equations.
11	*Number and Quantity*	N-RN.A.1	SA	Identify a radical expression equivalent to a given exponential expression and determine the index that gives a radical expression a given value.
12	*Algebra and Functions*	A-REI.D.10	SA	Determine the *y*-coordinate of a specific point that lies on the graph of a linear equation.
13	*Geometry*	G-GPE.B.6	CR	Determine the coordinates of the midpoint of a line segment contained in a line on a coordinate plane and the coordinates of points on the line that partition segments of the line into given ratios.
14	*Algebra and Functions*	A-SSE.A.1	SR	Describe the roles of the parts of a quadratic expression and create a trinomial expression based on given conditions.
15	*Geometry*	G-GPE.B.5	SR	Identify the equation of a line perpendicular to a given line that passes through a given point.
16	*Number and Quantity*	N-RN.B.3	SR	Determine possible values of variables given the irrational nature of their sum and the rational nature of their product.
17	*Algebra and Functions*	A-SSE.B.3	SR	Rewrite a linear equation to determine the nature of the slope and *y*-intercept of the line it represents.
18	*Geometry*	G-CO.A.3	SR	Identify one-step transformations that carry a rectangle onto itself and a triangle onto itself.
19	*Algebra and Functions*	A-SSE.A.2	SR	Identify one factor of a difference of two squares expression.
20	*Statistics and Probability*	S-ID.C.9	SR	Determine whether the results of a study indicate causation.
21	*Algebra and Functions*	F-IF.C.7	SR	Identify the equation of an exponential function from its graph.
22	*Number and Quantity*	N-Q.A.1	SR	Use dimensional analysis and estimation strategies to solve a real-world problem.
23	*Geometry*	G-CO.A.1	SR	Identify conditions that describe perpendicular lines.

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
24	*Algebra and Functions*	A-REI.A.1	SR	Justify each step in the solution of a linear equation in one variable.
25	*Geometry*	G-GMD.A.3	SR	Calculate the volume of a cone based on a context.
26	*Algebra and Functions*	F-LE.A.3	SR	Compare the values of linear, exponential, and quadratic functions for an element of their domains.
27	*Statistics and Probability*	S-CP.A.4	CR	Complete a two-way frequency table and provide analysis of the table by computing probabilities.
28	*Geometry*	G-CO.D.12	SR	Describe the results of the construction of congruent line segments.
29	*Geometry*	G-SRT.A.1	SR	Describe the transformation of a line segment on a coordinate plane given the transformation rule.
30	*Algebra and Functions*	A-CED.A.1	SR	Create and solve a one-variable equation based on a real-world situation.
31	*Geometry*	G-GPE.B.7	SR	Calculate the area of a trapezoid graphed on a coordinate plane.
32	*Statistics and Probability*	S-ID.B.5	SR	Calculate relative frequencies from a two-way table based on a real-world situation.
33	*Geometry*	G-CO.C.9	SR	Identify information sufficient to prove that two lines cut by a transversal are parallel.
34	*Algebra and Functions*	F-LE.B.5	CR	Interpret the parameters in a linear function that describes a real-world situation and solve problems based on those parameters.
35	*Geometry*	G-CO.B.6	SR	Analyze the results of the transformation of a triangle on a coordinate plane and categorize the transformation as a specific rotation or reflection.
36	*Number and Quantity*	N-Q.A.3	SR	Use dimensional analysis and conventional rounding methods to solve a real-world problem.
37	*Statistics and Probability*	S-CP.B.7	SR	Identify an expression that properly applies the addition rule to calculate a real-world probability.
38	*Geometry*	G-CO.B.7	SR	Identify corresponding angles and sides of two congruent triangles.
39	*Algebra and Functions*	F-IF.B.6	SA	Compare values in a table of real-world data and calculate a change in value over a specified interval.
40	*Geometry*	G-C.A.1	SR	Identify a transformation that must be applied to a circle to prove it is similar to another circle.
41	*Algebra and Functions*	F-IF.B.5	SR	Identify the range of a linear function based on a description of the relationship.
42	*Geometry*	G-SRT.C.8	SR	Use the Pythagorean Theorem to calculate a length in a real-world situation.

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