

Smarter Balanced Mathematics Online Training Test Activities Overview

Each year, students in Washington take the online Smarter Balanced assessment in English Language Arts (ELA) and mathematics and the online Washington Comprehensive Assessment of Science (WCAS) assessments. Many students also take online interim assessments. The ELA, mathematics, and science **Training Tests** and ELA and mathematics **Practice Tests**, available on the [WCAP portal](#), can help students become familiar with the features and tools of these assessments.

This document includes activities for the grades 3–5, 6, 7–8, and high school (HS) mathematics **Training Tests**. These activities describe some ways students can practice the tools for each question type. Questions from the **Practice Test**, for additional practice with each question type, are also identified both within the activities and at the end of this document.

Students who take online assessments should have opportunities to explore the features and tools prior to taking those assessments. However, such exploration should be carefully limited so that the focus remains on instruction aligned to the concepts and skills in the standards. Students' experiences with the **Training** and **Practice Tests** should be just enough that students' abilities to demonstrate their understanding of those concepts and skills are not hindered by their lack of familiarity with the online system.

These tests and assessments should not dictate classroom instruction; instruction should align to the Washington State K–12 Learning Standards (also referred to as “the standards”) in their entirety, not to any test.

Considerations:

- All students should have the opportunity to access both the **Training** and **Practice Tests** before an online interim or summative assessment.
- Teachers are encouraged to answer students' questions and give support during both the **Training** and **Practice Tests**.
- These activities assume students are using a computer with a mouse and keyboard. When using tablets or touch–screen enabled devices, these activities may need to be modified.
- These activities are not a checklist. There is no expectation that students complete all of the suggested activities. These activities do not describe all the possible ways students could engage with the questions or tools.
- The activities may be modified and/or shared with any interested teacher, parent, or student.
- The **Training** and **Practice Tests** are set up for practice only; students' answers are not scored or saved.

Questions or comments? [Email us at asi@k12.wa.us](mailto:asi@k12.wa.us). Thank you.



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Settings

There are many aspects of online assessments that can be modified, allowing equitable access for all students.

Default settings vary by grade level and content area. Educators should be familiar with the information in the [Guidelines on Tools, Supports, & Accommodations for State Assessment](#) in order to determine if these default settings should be modified for students. These guidelines also describe:

- which aspects of the assessment can be modified and in what ways;
- which universal tools are available for all students;
- which designated supports can be set for certain students or groups of students based on educator discretion; and
- which accommodations are allowed based on a student’s documented Individual Education Plan (IEP) or 504 Plan.

The **Training** and **Practice Tests** have the following default settings:

Default Settings: Grades 3–5

Review the following test settings.

Session ID: GUEST SESSION	
Math Grades 3-5 Training Test	
Presentation:	English
Text-to-Speech:	None
Strikethrough:	Strikethrough On
Masking:	Masking Available
American Sign Language:	Do not show ASL videos
Color Contrast:	Black on White (default)
Highlighter:	Highlighter On
Mark for Review:	Mark for Review On
Translations (Glossaries):	English Glossary
Expandable Passages:	Expandable Passages On
Streamline:	Streamline Off
Mouse Pointer:	System Default
Permissive Mode:	Permissive Mode Disabled
Zoom:	No default zoom applied
Digital Notepad:	Notepad

Default Settings: Grade 6

Review the following test settings.

Session ID: GUEST SESSION	
Math Grade 6 Training Test	
Presentation:	English
Text-to-Speech:	None
Strikethrough:	Strikethrough On
Masking:	Masking Available
Mark for Review:	Mark for Review On
Color Contrast:	Black on White (default)
American Sign Language:	Do not show ASL videos
Calculator:	Basic
Highlighter:	Highlighter On
Translations (Glossaries):	English Glossary
Streamline:	Streamline Off
Expandable Passages:	Expandable Passages On
Mouse Pointer:	System Default
Permissive Mode:	Permissive Mode Disabled
Zoom:	No default zoom applied
Digital Notepad:	Notepad

Default Settings: Grades 7–8

Review the following test settings.

Session ID: GUEST SESSION

Math Grades 7-8 Training Test

Presentation:	English
Text-to-Speech:	None
Strikethrough:	Strikethrough On
Masking:	Masking Available
Mark for Review:	Mark for Review On
Color Contrast:	Black on White (default)
American Sign Language:	Do not show ASL videos
Calculator:	ScientificInv
Highlighter:	Highlighter On
Translations (Glossaries):	English Glossary
Expandable Passages:	Expandable Passages On
Streamline:	Streamline Off
Mouse Pointer:	System Default
Permissive Mode:	Permissive Mode Disabled
Zoom:	No default zoom applied
Digital Notepad:	Notepad

Default Settings: High School

Review the following test settings.

Session ID: GUEST SESSION

Math HS Training Test

Presentation:	English
Text-to-Speech:	None
Strikethrough:	Strikethrough On
Masking:	Masking Available
Mark for Review:	Mark for Review On
Color Contrast:	Black on White (default)
American Sign Language:	Do not show ASL videos
Calculator:	ScientificInv&GraphingInv&Regressions
Highlighter:	Highlighter On
Translations (Glossaries):	English Glossary
Streamline:	Streamline Off
Expandable Passages:	Expandable Passages On
Mouse Pointer:	System Default
Permissive Mode:	Permissive Mode Disabled
Zoom:	No default zoom applied
Digital Notepad:	Notepad



Note the default setting for the calculator varies between the grade 6 and grades 7–8 **Training Tests** which is why there are two **Training Tests** for the grade band 6–8; the questions on the **Training Tests** for grade 6 and grades 7–8 are identical. Students should be familiar with the functionality of the calculator that will be available for that student on the interim and summative assessments. For further guidance on becoming familiar with the online calculator, see the calculator section on pages 9–14.

To see how modifying these default settings impacts the online testing experience, visit the [Smarter Balanced Training Test site](#).

Settings for interim and summative assessments are set within the Test Information Distribution Engine (TIDE) by your school or district test coordinator.

Test Instructions and Help

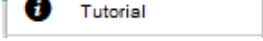

Before students start a **Training** or **Practice Test**, students see the Instructions and Help page. This page gives an overview of the test rules and tools. Educators should be familiar with the information on this page to help students navigate the test and tools more easily.

Rather than having students read through this information or reading it to students, it is recommended that educators use this information to guide students while they are taking the **Training** or **Practice Tests**. This will allow students to connect the tools they are using with specific question types in the **Training** or **Practice Tests**. Students should be told that they can access the information on this page anytime by clicking on the help  button. Feel free to make use of the information found when clicking the help  button during any of the activities described below.

Test Rules and Tools

The main purpose of the **Training Test** is to provide students opportunities to become familiar with the test rules and tools. Several of the activities described in this document call out specific tools with which students can practice. Encourage students to use other tools, as they have questions or you see fit, to gain familiarity with these tools.

Question Tutorials

Each question in the **Training Tests** includes a tutorial video,  , available through the context menu  button. Students can view these videos for further guidance on answering a particular question type.

Note many of these videos do not include mathematical content; these videos are meant to show the general functionality of the question type rather than how a student might answer an actual mathematics test question.

Grades 3–5, 6, 7–8: We do not recommend educators show the equation/numeric video to students. The buttons shown are not used at lower grade levels and the mathematical content in that video may confuse students at these grade levels. Rather, students should become familiar with the buttons available at their grade level.

Additional Information

In addition to the information provided on the Instructions and Help page, educators should be aware of how certain tools function, as described below.

Calculator:

In the grades 6 through high school mathematics **Training Tests**, students have access to a calculator for all questions. However, the mathematics **Practice Tests**, many interim assessments, and the summative assessments are separated into a non-calculator segment and a calculator segment. The questions in each segment of the **Practice Tests** are identified on pages 29–32, and students should know that there are some questions for which they will not have access to a calculator.

Save:

Note that the "Save" button really only has use during the interim and summative assessments as student responses to the **Training** and **Practice Tests** are not saved. When working on constructed-response questions on the interim or summative assessments, students can use the "Save" button to save a partial response. Educators should inform students that, when they click the "Save" button, there is no notice that the student response(s) have been saved. Assure students that, during the interim and summative assessments, their response(s) are saved when they click the "Save" button. Their responses are also saved every few seconds even if they do not use the "Save" button.


Pause:

For the **Training** and **Practice Tests**, if students click the "Pause" button then select "Yes" to pause the test, they are logged out of the test. This is the same as the interim and summative assessments. For the **Training** and **Practice Tests**, however, students cannot go back to any questions they previously answered, even if they log back in within 50 minutes. This is related to the fact that student responses are not saved for **Training** or **Practice Tests**. Students will need to restart the **Training** or **Practice Test** entirely from the beginning. During the interim and summative assessments, students who log out using the "Pause" button will be able to continue testing from where they left off.

Glossary/Translation:

Some words or phrases in questions have a border around them. These words are non-mathematics words with which students may not be familiar. Clicking on the word will present a definition or translation, depending on the settings selected for the student.

Tutorial, Notepad, and Flag (Mark for Review):

To access these tools, students click on the context menu  button, or right-click on the text of the question. Note that some text, such as the stimulus that appears on the left-hand side of the screen for performance tasks, do not have these tools available even when the context menu button appears above the text.

Highlighter:

To remove highlighting, right-click on the highlighted text and select "Reset Highlighting." Note that this will remove **all** highlighting from all parts of the question.

Strikethrough:

The strikethrough tool does not determine which options students can select or which option or combination of options the system interprets as the student's answer. An option can have both the strikethrough and the box checked or bubble filled. When this happens, the system will ignore the strikethrough and count the checked box(es) or the filled bubble as the answer the student has selected.

Example 1:

In Example 1, both the first and second boxes are checked and the first option has the strikethrough. The system ignores the strikethrough and counts both the first and second boxes as the options the student has selected.

Kaden has 7 bags of animal toys. Each bag has these animal toys in it.

- 1 whale toy
- 5 dolphin toys
- 2 turtle toys

How many animal toys does Kaden have altogether?

Select **all** of the equations that show how to find the total number, t , of animal toys.

- ~~$7 \times 8 = t$~~
- $7 + 1 + 5 + 2 = t$
- $7 \times (1 + 5 + 2) = t$
- $7 + (1 \times 5 \times 2) = t$

Example 2:

In Example 2, the bubble for option A is filled and all four options have the strikethrough. The system ignores the strikethrough and counts option A as the answer the student has selected.

Which equation has the same unknown value as $30 \div \square = 6$?

- ~~A $6 \times 30 = \square$~~
- ~~B $6 \div 30 = \square$~~
- ~~C $6 \times \square = 30$~~
- ~~D $6 \div \square = 30$~~

Online Calculator

In grades 6 through high school, students have access to a calculator during the **Training Test**. Students in those grades also have access to a calculator during some parts of the **Practice Test**, interim, and summative assessments. The type of calculator varies by grade level:



1. Students in grade 6 have access to a basic, four-function calculator.
2. Students in grades 7 and 8 have access to a scientific calculator.
3. Students in high school have access to a graphing calculator.

Students should be familiar with the functionality of the calculator prior to using it on an interim or summative assessment.

General Comments.

- What the student enters into the calculator is not recorded for purposes of answering a question. Students must still answer questions using the directions given in the questions.



- Using the zoom in **Zoom In** button will increase the font size of the calculator.
- Each calculator can be moved on the screen using the mouse, and can be resized using the tabs on the bottom of and right-hand side of the calculator.
- All calculators include an undo, , and redo , button.
- Calculators retain information that is typed into the calculator until the student moves to





Next



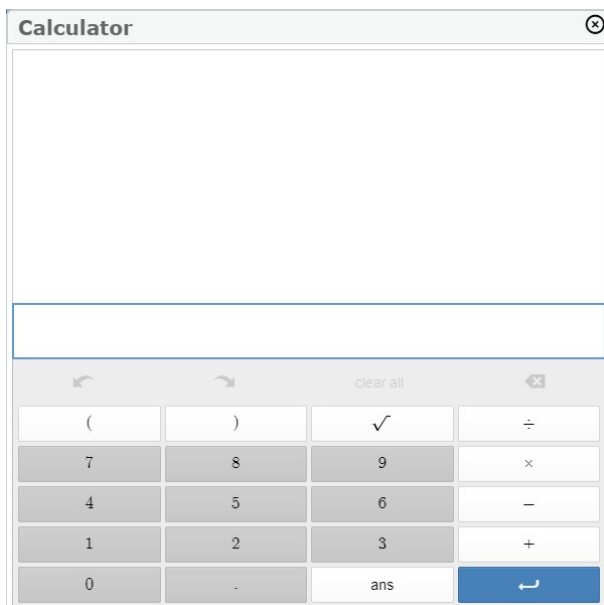
Back

another page, such as when they use the next **Next** or back **Back** buttons. Students can open and close the calculator as they work through the question or question(s) on the same page without losing work done on the calculator.



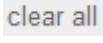



- When the calculator is unable to process what the student has entered, the yellow alert  symbol will display. Hovering the cursor over the yellow alert  symbol shows text related to the issue, such as:
 - "Sorry, I don't understand this." (all calculators)
 - "This calculator does not support equations." (for scientific calculator)
 - "Use parentheses around the argument of 'sin'." (for scientific and graphing calculators)
 - "Points are written like this: (1, comma 2)" (for graphing calculator).

Basic, Four-Function Calculator

In the basic, four-function calculator, students enter numeric expressions that the calculator evaluates according to the order of operations. The value of the expression is displayed on the same line, to the right, in real time. Students can change an expression and the value will be updated in real time.



Functionality to note:

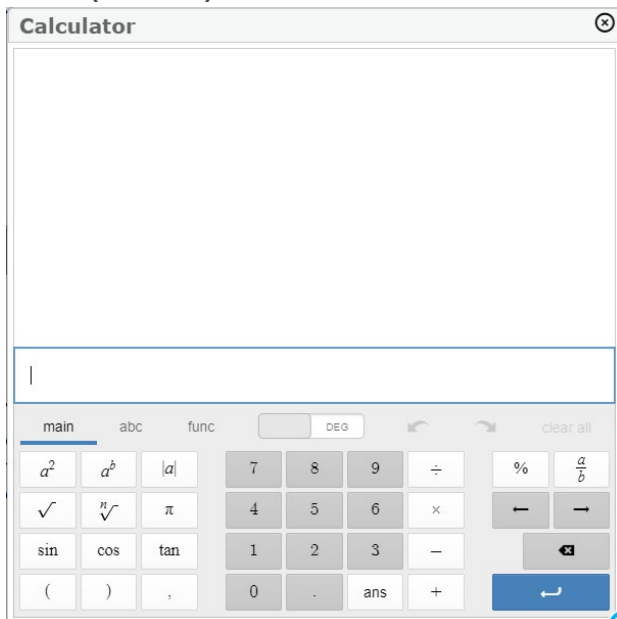
- Students can enter expressions using the buttons on the calculator or the number keys on the keyboard. Students can enter positive or negative (using the negative ) whole numbers or decimals.
- Students have access to a square root function using the square root  button.
- Students can remove all work in the calculator using the clear all  button.
- Students can remove parts of the work in the calculator, one at a time, using the backspace  button or the backspace or delete keys on the keyboard.
- Students can use the value of one expression in subsequent expressions by using the answer  button.
- Students can use the return  button or the return key on the keyboard to enter a new expression.

Scientific Calculator

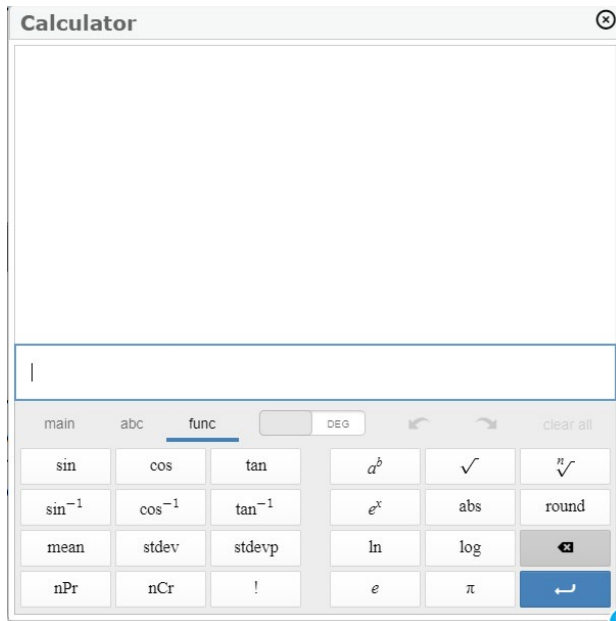
In the scientific calculator, students enter numeric or algebraic expressions that the calculator evaluates according to the order of operations. The value of the expression is displayed on the same line, to the right, in real time. Students can change an expression and the value will be updated in real time.

The scientific calculator includes several functions, shown across two tabs:

Main (Default) Tab



Functions Tab



A third tab, a b c **abc** , provides letters and some symbols found on the other two tabs. Students will likely not find this a b c **abc** tab useful as its primary function, to write and solve equations using variables, has been disabled for the **Training** and **Practice Tests** and the interim and summative assessments. This function is disabled because solving equations is a skill students are tested on in grades 7 and 8.

Students may not be familiar with some of the functions on the calculator, depending on the mathematics course they are taking. Work with students to identify the functions that they might use and become familiar with how those functions work on the calculator.

Functionality to note:

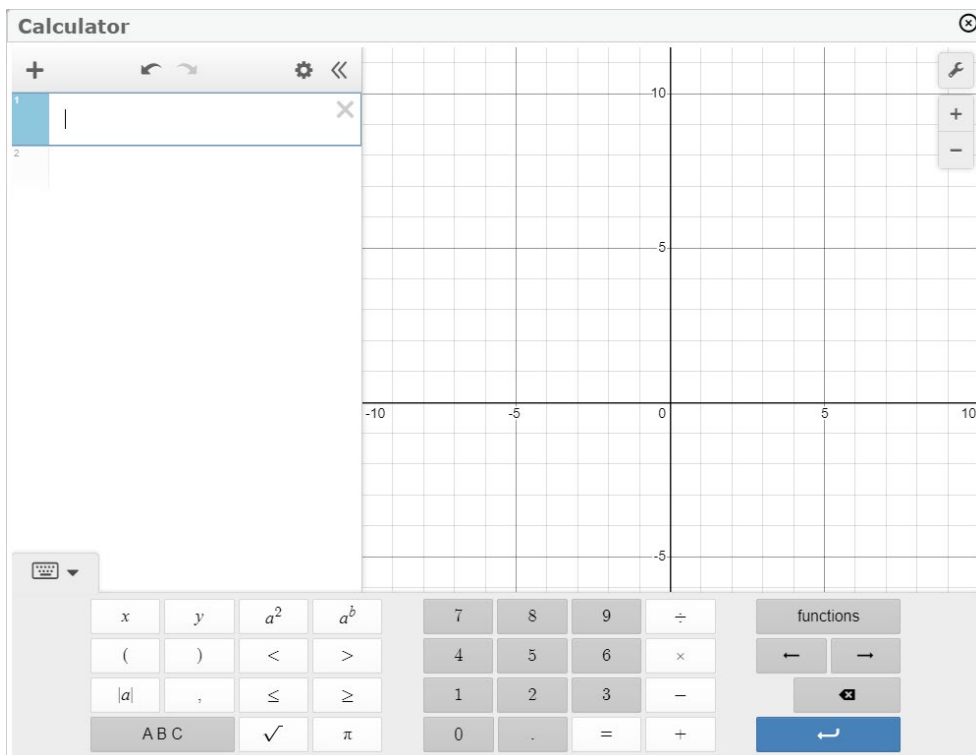
- Students can enter expressions using the buttons on the calculator or the number keys on the keyboard. Students can enter positive or negative (using the negative **-** button) whole numbers, decimal, or fractions (using either the division **÷** or a over b $\frac{a}{b}$ buttons).
- Students can remove all work in the calculator using the clear all **clear all** button.
- Students can remove parts of the work in the calculator, one at a time, using the backspace **⌫** button or the backspace or delete keys on the keyboard.
- Students can use the value of one expression in subsequent expressions by using the answer **ans** button.
- Students can use the return **↵** button or the return key on the keyboard to enter a new expression.

Graphing Calculator

In the graphing calculator, students enter numeric or algebraic expressions that the calculator evaluates according to the order of operations. The value of the expression is displayed on the same line, to the right, in real time. Students can change an expression and the value will be updated in real time. Students can also enter equations, in terms of x and y , or functions (using function notation) that the calculator graphs. The graphs of the equations/functions are displayed on a grid, to the right, in real time. Students can change an equation/function and the graph will be updated in real time.

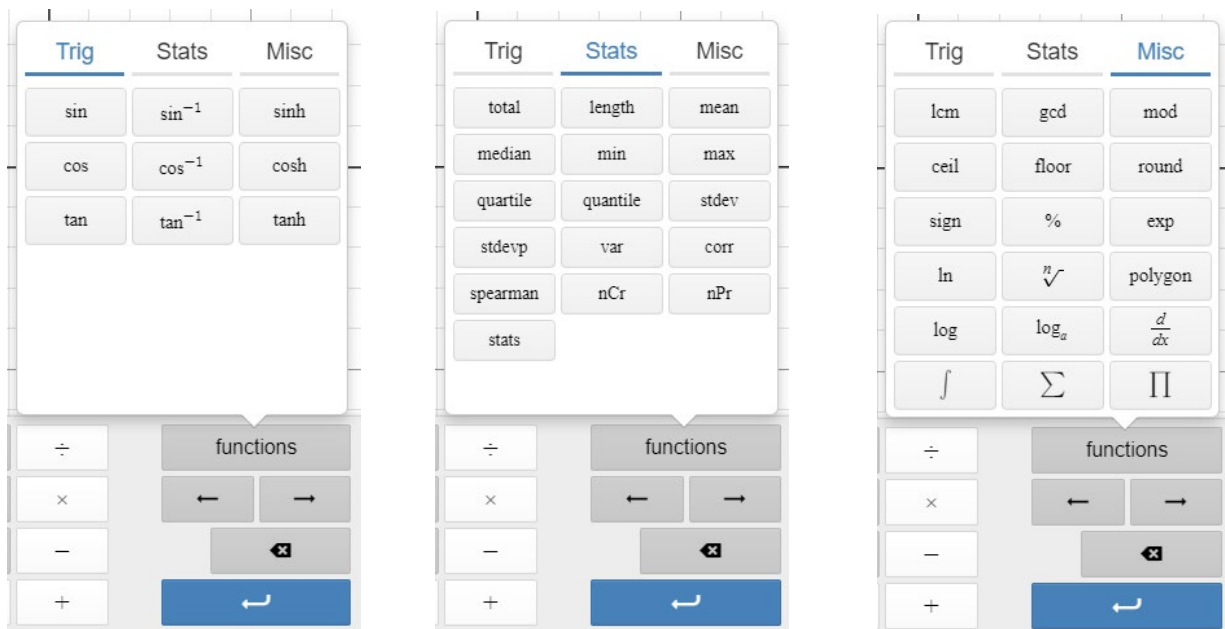
The graphing calculator includes many of the same functions as the scientific calculator; these functions are shown across one main tab and three smaller tabs:

Main Tab:



Smaller Tabs:

(click on the functions **functions** button on the Main Tab)



Students may not be familiar with some of the functions on the calculator, depending on the mathematics course they are taking. Work with students to identify the functions that they might use and become familiar with how those functions work on the calculator.

The graphing calculator also has an A B C **A B C** tab that students can use to create expressions, equations, and functions with changeable parameters. Unlike the scientific calculator, this functionality is supported in the graphing calculator. For example, a student could enter the function $f(x) = ax + 4$ and then use the graphing calculator to see the effect that changing the value of a has on the graph of the function. To return to the Main Tab, click the 1 2 3 **1 2 3** button.








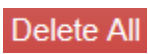







ABC Tab:



The graphing calculator has the most features and functionality, and a more complete guide to using the graphing calculator is the [online Desmos User Guide for the graphing calculator](#). The Desmos User Guide describes how students can use specific features of the graphing calculator such as creating data tables and performing regressions.

Please note that the calculator available in the **Training** and **Practice Tests** and interim and summative assessments may have slightly different functionality than described in the Desmos User Guide. For example, the graphing calculator available in the **Training** and **Practice Tests** and interim and summative assessments cannot save or share a graph. The Desmos User Guide is, however, likely the best starting place for exploring the functionality of the graphing calculator students will use when testing.

Functionality to note:

- To see all the functions, click the show keypad  button. To hide the functions, and see more of the graph of an equation or function, click the hide keypad  button.
- To see more of the graph, click the hide list  button. To see the list of expressions, equations, or functions again, click the show list  button.
- As with the scientific calculator, the ability to write and solve single-variable equations in the graphing calculator has been disabled for the **Training** and **Practice Tests** and interim and summative assessments. This function is disabled because solving equations is a skill students are tested on in high school.
- Students can enter expressions using the buttons on the calculator or the number keys on the keyboard. Students can enter positive or negative (using the negative  button) whole numbers, decimals, or fractions (using either the division  or a over b $\frac{a}{b}$ buttons).
- Students can remove all work in the calculator using the edit list  button. Students can then remove either all the expressions, equations, or functions using the delete all  button or delete only select expressions, equations, or functions using the X  buttons. To return to where they can enter new expressions, equations, or functions, students must click the done  button.
- Students can remove parts of the work in the calculator, one at a time, using the backspace  button or the backspace or delete keys on the keyboard.
- Students can use the return  button, the return key on the keyboard, or click on a new line in the list on the left side of the screen to enter a new expression, equation, or function.
- Students can zoom in or out of the graph using the plus  and minus  buttons. Additional tools to change the view of a graph are available using the graph settings  button.

Mathematics Training Test Questions


Questions 1–5 are the same question types across all the **Training Tests**: grades 3–5, 6, 7–8, and high school (HS). Questions 6–8 have slightly different question types across the **Training Tests**, so the grade-level of those questions on the **Training Tests** are noted.

Question 1: Multiple-Choice


This question type provides three or more options from which the student selects one option by clicking the circles in front of the option.

Note the letters inside each circle. These letters, and the circles, can be cues to students that on this question students can select only one option. Compare this to the multiple-select question type (**Training Tests** question 4) which uses boxes without letter and allows students to select more than one option.

Suggestions for working with students on this question type include:

- Have students click on a circle, resulting in that circle turning gray, then click on the same circle again. Note that there is no change when the student clicks the second time.
- Have students click the circle in front of one option, resulting in that circle turning gray. Then have the student click the circle in front of another option. The gray circle should move from the first option selected to the second option selected, showing students that they can only select one option at a time. Help students understand this is how they can change their answer, if desired.
- Have students strikethrough an option. There are two ways to do this:
 - Click the context menu  button and select the strikethrough tool to turn strikethrough mode on.
 - Click on an option to strikethrough; students can select multiple options to strikethrough.
 - Click anywhere outside of the box that appears around all the options to turn strikethrough mode off.

OR

- Right-click, using the mouse, on an option and select strikethrough from the menu that appears. To strikethrough multiple options, students must right click on each option individually.
- Have students use the strikethrough tool to strikethrough one or more options. Then have them remove those strikethroughs. Have students experiment using the context menu  button and the right-click feature of the mouse to complete this task.
- Have students experiment with selecting an option and placing a strikethrough on the same option. Note the information in the Instructions and Help section earlier in this document regarding the interaction of selecting an option and using the strikethrough.

- Have students select the first option, which results in a box appearing around the option. Then have the student press the “Tab” key on the keyboard, noting that the box around the option moves to the next option. Have students press the Spacebar on the keyboard to select that second option. Work with students to understand how to use the “Tab” key (to move down the list) and pressing “Shift+Tab” (to move up the list) to move between options and use the Spacebar to select or un-select options.
- Have students select the option they think is correct and discuss their reasoning for selecting that options as well as their reasoning for not selecting the other options.

Multiple-choice questions in the **Practice Tests**:







GRADE	QUESTION NUMBER
Grade 3	4, 6, 7, 10, 12, 16, 17, 19
Grade 4	2, 4, 5, 7, 12, 31
Grade 5	2–4, 7, 8, 11, 12, 16, 24, 29
Grade 6	None
Grade 7	1, 3, 8, 16, 19
Grade 8	7, 8, 10, 11, 14, 17, 23
High School	1, 2, 5, 10, 14, 15, 17

Question 2: Equation/Numeric

This question type provides one or more boxes in which students enter numbers, expressions, inequalities, or equations.








The answer box or boxes appear below the question. When multiple answer boxes appear, remind students to read the question carefully to ensure the correct information is put in the correct box.

Five buttons appear directly below the answer box. These buttons are common to all equation/numeric questions. These buttons create the following actions:








- Left arrow  moves the cursor back one space (students can also use the ← keyboard key)
- Right arrow  moves the cursor forward one space (student can also use the → keyboard key)
- Undo  removes the last action taken
- Redo  puts back the last action undone by the undo  button
- Delete  removes the number/object to the left of the cursor (students can also use the backspace keyboard key)

All equation/numeric questions also include buttons for the digits 0–9 and a decimal point. Additional buttons, such as a negative symbol, fraction, operators, and variables, vary by grade and question. These buttons show the limits of what the student can enter as an answer; only the numbers, symbols, and variables shown on the buttons can be used.

Suggestions for working with students on this question type include:

- Let students know they can use the keyboard to type all or part of a response and/or click on the buttons provided. Typing a response should be rather straightforward, but it is worth noting the following:
 - To show multiplication, students cannot use the “x” keyboard key; they must use the “*” symbol, typically by pressing “Shift+8.”
 - To create exponents, students would type the base, then the “^” symbol, typically by pressing “Shift+6,” then the exponent. So, to type 4 to the ^{3rd power} the student would type “4, Shift+6, 3”.
 - There is no keyboard shortcut to create the “÷” symbol; using the “/” key creates a fraction, not the “÷” symbol.
 - There is no keyboard shortcut to create the absolute value symbol.
- Have students enter a number, expression, inequality, or equation. Then have the students use the left arrow  and right arrow  buttons (or the ← or → keyboard keys) to move the cursor within the answer box to edit their answer.
- Have students enter an expression, inequality, or equation. Then have the students use the undo  and redo  buttons to remove and redo part and/or all of what they entered.
- Have students click on and use all of the buttons to explore how each one functions in the answer box. Of special note:
 - **Grades 3–5:** Have students practice using the fraction  button to create fractions. Have students practice using the left arrow  and right arrow  buttons, the ←, →, ↑ or ↓ keyboard keys, or the mouse to move the cursor in front of the fraction, between the numerator and denominator, and behind the fraction. Then have students enter numbers to see the effect of the cursor in different locations. Note: some equation/numeric questions will have more buttons than shown in the **Training Test**; we recommend students become familiar with those buttons perhaps through using the **Practice Test** or interim assessments.
 - **Grades 6–8:** The buttons available in the **Training Test** should be straightforward and may not need specific practice. Note: some equation/numeric questions will have more buttons than shown in the **Training Test**; we recommend students

become familiar with those buttons perhaps through using the **Practice Test** or interim assessments.

- **High School:** Have students practice with the fraction  button, the exponent and subscript   buttons, and radical and root   buttons to do work with various forms of exponents. Have students practice using the left arrow  and right arrow  buttons, the \leftarrow , \rightarrow , \uparrow , \downarrow keyboard keys, or the mouse to move the cursor to different locations. Then have students enter numbers to see the effect of the cursor in different locations. Students can also explore combining these buttons, e.g., a fractional exponent or a radicand with an exponent. Note: aside from variables, which can change from question to question, the buttons shown in the **Training Test** are comprehensive of the buttons students will see on any equation/numeric question.
- Have students enter their answer by only clicking on the buttons provided. Have students delete their response. Then have students enter their answer using only the keyboard. Discuss the pros and cons of each approach to recording their answer.
- Have students enter their answer to the question. Then have students describe how they determined their answer.

Equation/numeric questions in the **Practice Test**:

GRADE	QUESTION NUMBER
Grade 3	1–3, 5, 8, 9, 11, 15, 18, 20, 23, 26–28
Grade 4	1, 3, 9, 14, 17, 19, 21–25, 27–29
Grade 5	5, 6, 9, 10, 13–15, 19–22, 25, 28, 30
Grade 6	1, 3, 5–7, 11, 12, 16, 18, 19, 22, 23, 26–28
Grade 7	2, 5, 6, 9, 10, 12, 13, 15, 18, 21, 23–28, 30, 31
Grade 8	1, 6, 12, 16, 18, 21, 22, 24, 27, 29, 31
High School	3, 6, 8, 12, 16, 18, 19, 21, 27, 28

Question 3: Matching Table

This question type provides students with statements, equations, or expressions and two or more choices for each.

Note the layout of this question type. The statements, equations, or expressions appear on the left-hand side of the table. The choices appear above the right-hand side of the table. Students must click in the boxes under the choices that correspond to each statement, equation, or expression for a complete answer.

Some matching table questions ask students to select only one choice per statement, equation, or expression for a correct answer. Other Matching Table questions may require students to

select more than one choice per statement, equation, or expression for a correct answer. Students should read carefully and follow directions for each Matching Table question.

Suggestions for working with students on this question type include:

- Have students click on a box resulting in a checkmark in the box, then click on the same box again. Help students understand this is how they can change their answer from selecting a choice (showing a checkmark in the box) to not selecting a choice (showing a blank box).
- Have students select a choice for the first statement, equation, or expression. Then, have the student change their answer to another choice for that statement, equation, or expression. Discuss how students changed their answer so that there is only one checkmark for the first statement, equation, or expression.
- Have students click in a box, which results in blue shading appearing around the box. Then have the student press the "Tab" key on the keyboard, noting that the shading around the box moves to the next box. Have students press the Spacebar on the keyboard to put a checkmark in that second box. Work with students to understand how to use the "Tab" key (to move forward through the boxes in the table) and the "Shift+Tab" key combination (to move backward through the boxes in the table) to move between boxes and use the Spacebar to place or remove a checkmark in a box.
- Have students make a choice or choices for all statements, equations, or expressions in the table. Then have students describe how they determined their answer for each statement, equation, or expression.

Matching Table questions in the **Practice Test**:


GRADE	QUESTION NUMBER
Grade 3	14, 22, 31
Grade 4	6, 11, 13, 15
Grade 5	17, 18, 26
Grade 6	2, 4, 20, 21
Grade 7	11, 17
Grade 8	3, 5, 9, 15, 19
High School	22, 23, 25

Question 4: Multiple-Select


This question type provides three or more options from which the student selects a combination of one or more options by clicking in the boxes in front of each option.

Note that there are boxes in front of each option; this can be a cue to students that they can select more than one options for their answer and that they should consider every option to determine if it is a correct answer to the question. This does **not** mean that a correct answer requires more than one option selected.

Suggestions for working with students on this question type include:

- Have students click all four boxes, resulting in a checkmark in each box, showing them that they can select more than one option. Let them know that to correctly answer these types of questions they must consider whether each option is a correct answer to the question, and that they may have to select more than one option to get a correct answer. Work with students to help them understand how this is different from a multiple-choice question (**Training Tests** question 1) where only one answer is correct.
- Have students click on a box, resulting in a checkmark in the box, then click on the same box again. Help students understand this is how they can change their answer from selecting an option (showing a checkmark in the box) to not selecting an option (showing a blank box).
- Have students strikethrough an option. There are two ways to do this:
 - Click the context menu  button and select the strikethrough tool to turn strikethrough mode on.
 - Click on an option to strikethrough; students can select multiple options to strikethrough.
 - Click anywhere outside of the box that appears around all the options to turn strikethrough mode off.

OR

- Right click on an option and select strikethrough from the menu that appears. To strikethrough multiple options, students must right click on each option individually.
- Have students use the strikethrough tool to strikethrough multiple options. Have them remove the strikethroughs on those options. Have students experiment using the context menu  button and the right-click feature of the mouse to access and remove strikethrough.
- Have students experiment with selecting an option and placing a strikethrough on the same option. Note the information in the Instructions and Help section earlier in this document regarding the interaction of selecting an option and using the strikethrough.
- Have students select an option, which results in a box appearing around the option. Then have students press the "Tab" key on the keyboard, noting that the box around the option moves to the next option. Have students press the Spacebar on the keyboard to select that second option. Work with students to understand how to use the "Tab" key (to move down the list) and the "Shift+Tab" key combination (to move up the list) to move between options and use the Spacebar to select or un-select an option.
- Have students select a combination of one or more options they think is correct and discuss their reasoning for selecting those options as well as their reasoning for not

selecting the other options. Remind students that, for these types of questions, they need to consider every option.

Multiple-select questions in the **Practice Test**:

GRADE	QUESTION NUMBER
Grade 3	25
Grade 4	8, 16
Grade 5	None
Grade 6	8, 15, 24, 25, 29
Grade 7	5, 7, 14, 20, 29
Grade 8	4, 25, 30
High School	20

Question 5: Fill-In Table

This question type provides an empty or partially completed table into which students type numeric values to complete the table.

Note the cells into which students will type numbers, which are partially blue. Clicking in a blue cell will turn it white and a cursor will appear. Note that unlike an equation/numeric question (**Training Tests** question 2), students must use the keyboard to type a number into a cell; there are no buttons on which students can click.

Suggestions for working with students on this question type include:

- Have students click in one cell and note that the cursor appears. Have the students click in a different cell to show how to move the cursor to a different cell. Remind students that a complete answer requires values in all cells of the table.
- Have students click in a cell, which results in a cursor in the cell. Then have students press the "Tab" key on the keyboard, noting that the cursor moves to the next cell in the table. Work with students to understand how to use the "Tab" key (to move forward through the cells in the table) and the "Shift+Tab" key combination (to move backward through the cells in the table) to move the cursor.
- Have students enter an incorrect value in a cell, then correct the error using the keyboard and/or mouse.
- Have students enter a letter into a cell and note the error message shown. Also note the cell turns red to show a letter is not an acceptable answer. Educators should note, however, that students can move on to the next question without fixing the error.
- Have students complete the table and discuss the strategies they used to determine the missing values in the table.

Fill-In Table questions in the **Practice Test**:

GRADE	QUESTION NUMBER
Grade 3	13
Grade 4	None
Grade 5	None
Grade 6	9, 17
Grade 7	None
Grade 8	28, 32
High School	None

Questions 6–8 in Grades 3–5: Drag-and-Drop, Graphing, Hot Spot

Questions 6–7 in Grades 6, 7–8, HS: Drag-and-Drop, Graphing, Hot Spot




These questions provide a variety of technology-enhanced ways to answer questions. They also show that the drag-and-drop, graphing, and hot spot question types can be combined within a question. Often times the question will have multiple parts, e.g. Part A, Part B. Students should be familiar with the individual question types as well as questions that combine question types. Students should read the directions for all questions carefully to ensure they provide a complete answer.

Drag-and-Drop



- Grades 3–5: Question 6, Part B
- Grades 6 and 7–8: Question 6, Parts B and C
- High School: Question 6, Parts A and B

The drag-and-drop question type provides objects, including numbers, that students place in an answer box, on a number line, or in another diagram in the answer space. These objects can appear to the left of the answer space or below the answer space.

- When the objects appear to the left of the answer space, those objects can be placed in the answer space multiple times.
- When the objects appear below the answer space, those objects can be placed in the answer space only once.

For this question type, the cursor  and delete  buttons often appear above the answer space. Note that the delete  button must be used to delete objects one-by-one; there is no “Delete all” or “Clear” button. Note the color of the buttons as well; the button with the gray background is the currently-selected tool.

Suggestions for working with students on this question type include:

- Have students examine the question and answer space carefully to determine where they should drag objects to answer a question. Often students will place objects in a box in the answer space; however, some objects will be placed on a number line, grid, or other diagram. Also have students note the number of objects they need to drag into the answer space to create a complete answer.
- Have students drag one object into the answer space. Then have students delete that object by clicking on the delete  button then clicking on the object. Then have student drag a different object into the answer space. Encourage students to use the delete  button to remove any object in the answer space that they do not want as part of their answer, i.e., students should not leave stray objects in the answer space.
- Have students drag one object into the answer space. Then have students drag the same object into the answer space. Help students understand when they can drag the same object multiple times into the answer space (when the objects appear to the left of the answer space) and when they can only drag the object one time (when the objects appear below the answer space).
- Have students drag an object into the answer space, then have students drag a different object to the same location in the answer space. Note that the two objects appear on top of each other. Let students know that when this happens in a box in the answer space, this means the answer box should only have one object placed inside the box.
- Have students drag an object into the answer space, then click on that object. Note the blue box that appears around the object. Have students use the ←, →, ↑ or ↓ keyboard keys to move the object around the answer space. Students can press the Spacebar to place the object in a specific location, which removes the blue box from around the object.
- Have students drag the object(s) into the answer space they think correctly answers the question and discuss how they determined that answer.




Drag-and-drop questions in the **Practice Test**:

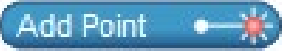


GRADE	QUESTION NUMBER
Grade 3	21, 29
Grade 4	10, 20, 30
Grade 5	31
Grade 6	13, 14
Grade 7	22
Grade 8	13
High School	7

Graphing

- Grades 3–5: Question 7
- Grades 6 and 7–8: Question 6, Part A
- High School: Question 7




The graphing question type provides a grid, number line, or other image on which students draw points, segments, rays, or other figures.




Note the buttons above the answer space. The cursor  and delete  buttons are common to all graphing questions. Note that using the delete  button will delete objects one-by-one; there is no “Delete all” or “Clear” button. Note the color of the buttons as well; the button with the gray background is the currently-selected tool.










Additionally, add point , connect line , and/or add arrow  buttons appear above the answer space. These buttons are used to answer the question. Note that students may not need to use all buttons to create a complete, correct answer.

Suggestions for working with students on this question type include:

- Have students examine the question and answer space carefully to determine where they should draw points, segments, rays, or other figures. Often students will draw these on a grid; however, some will be drawn on a figure or other diagram. Also have students note the number of points, segments, rays, or other figures they need to draw to create a complete answer.
- Have students examine the buttons available above the answer space. These will help them understand the type of answer they should draw in the answer space.

- Have students click on one of the add point , connect line , or add arrow  buttons above the answer space. Have students note the directions, in blue, that appear below the answer space.

These directions can help students correctly use the add point , connect line , and add arrow  tools.

- Have students use one of the add point , connect line , or add arrow  tools to draw a figure, then switch to another tool or the delete  tool to modify the figure.
- Have students use the add arrow  or connect line  to draw a line or segment. Then have them use the delete  button to delete one point, , at one end of the line/segment. Discuss the effect on the line/segment (it is also deleted) as well as on the point at the other end of the line/segment (it is not deleted). Have students then delete the remaining point, noting that students should delete all points, segments, rays, or figures that they do not want as part of their answer.
- Have student draw one line/segment. Then have students move one point at one end of the line/segment. To do this, students will need to select the cursor  button and click and hold to move the point. Have the students experiment with moving the points on both ends of the line/segment to create different lines/segments.
- Have students draw points, segments, rays, or other figures they think correctly answers the question and explain their reasoning for drawing their answer in a particular way.

Graphing questions in the **Practice Test**:


GRADE	QUESTION NUMBER
Grade 3	None
Grade 4	18
Grade 5	1, 27
Grade 6	13
Grade 7	None
Grade 8	2, 26
High School	24, 26

Hot Spot

- Grades 3–5: Question 6, Parts A and B; Question 7; Question 8
- Grades 6 and 7–8: Question 7
- High School: None (suggest using the grades 7–8 **Training Test**)

The hot spot question type provides an image, graph, or other object on which the student clicks.

Suggestions for working with students on this question type include:

- Have students examine the question and answer space carefully to determine where they should click to provide a complete answer.
- For most hot spot questions, no buttons appear above the answer space; this can be a cue to the student that they need to click in the answer space to create a complete answer. If buttons appear above the answer space, have students explore how they interact with the hot spot answer space; most likely any buttons are meant for a drag-and-drop or graphing portion of the question and have no effect on the hot spot part of the question. For the Grades 3–5 **Training Test**, note the delete  button does not work to remove any “x” the student has added to the line plot. Students must click on an “x” to remove it, as described below.
- Have students click at various locations inside the answer space to explore the results. Discuss where students can click for this question type and what effect that has on the answer space. Note there are places where the student can click that does not have any effect on the answer space.
- Have students click at a specific location in the answer space, then click at the same location. For most hot spot questions, this will toggle between an object placed in the answer space and removing that object. Help students understand this is one way they can change their answer.
- Have students click in the answer space to create an answer they think is correct and discuss their reasoning for creating the answer in a particular way.

Hot-spot questions in the **Practice Test**:

GRADE	QUESTION NUMBER
Grade 3	24, 29, 30
Grade 4	18, 26
Grade 5	23
Grade 6	10
Grade 7	32
Grade 8	20
High School	9, 11, 13, 24

Combination

- Grades 3–5: Question 6; Question 7
- Grades 6 and 7–8: Question 6
- High School: None

The combination question type includes functionality from at least two question types: drag-and-drop, graphing, and hot spot.

Note that students may not need to use all the different question functionality to correctly answer a question. For example, question 7 in the grades 3–5 **Training Test** does require the

use of the graphing question type to draw an arrow, but does not require use of the hot spot question type of clicking on the box with the word “NONE.”

Suggestions for working with students on this question type include

- Have students examine the question and answer space carefully to determine how to answer each part of the question. A complete student response must provide answers to all parts. Help students understand they may have to use different tools and methods to answer different parts of the question.
- Have students examine the buttons available above the answer space. Help students understand that they might not use all the tools available to them to create a complete answer to the question.
- Have students discuss the tools they would use to answer each part of the question. Guiding questions educators might use include, “What would a complete answer for this part of the question look like?” or “How would you know that you have completely answered this part of the question?”
- Have students discuss what a complete answer to the question might look like, i.e., discuss what it would look like when all parts of the question are answered. Then have students create a complete answer to all parts of the question and discuss their reasoning for creating the answer in a particular way.

Combination questions in the **Practice Test**:


GRADE	QUESTION NUMBER
Grade 3	29
Grade 4	18
Grade 5	None
Grade 6	13
Grade 7	None
Grade 8	None
High School	4, 24





Question 8, Grades 6, 7–8, HS: Text-based Response

There is no text-based response question in the Grades 3–HS **Practice Tests**. Students in grades 3–HS may see short text questions in the interim or summative Performance Task.

A text-based response question provides an answer box into which students type a response.

Note that text-based response questions may have the following formatting tools (interacting with these tools may be best facilitated via the Interim Performance Tasks):

- Font buttons  allow students to format text into bold, italicized, and underlined text, as well as remove those formatting types from text.

- Paragraph buttons  allow students to create numbered or bulleted lists as well as change the indent levels of those lists.
- Edit buttons  allow students to cut or copy part of their response and paste that part elsewhere in their response as well as undo or redo an action.
- Spell check button  allows students to check the spelling of their response in either English or Spanish.
- Math symbol button  allows students to insert symbols into their text.

Text-based Response questions in the **Practice Test**:



GRADE	QUESTION NUMBER
Grade 3	None
Grade 4	None
Grade 5	None
Grade 6	None
Grade 7	None
Grade 8	None
High School	None


End Test Button




On the same page as question 8 of the **Training Test**, an end test **End Test** button will appear. Students should only click this button when they are finished answering all questions on the **Training Test**.


Please note the following:

- During interim and summative testing, students should check that they are completely done answering all questions before clicking that button. For tests that have non-calculator and calculator segments, they can only check questions in the calculator segment.
- Sometimes students will need to hit the next  button to make the end test  button appear. Other times it will appear as soon as the student begins to answer the question. Students should only click this button when they are finished answering all questions.
- When students see that button before they have completely answered the last question on the test, reassure them that they can finish answering that last question on the test before clicking that button.


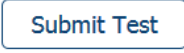
- We recommend that students wait for directions from a proctor before they click the end test  button.




Clicking the end test  button will take students to the Review Page.

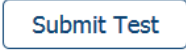
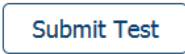
Review Page

A review page will show after students have clicked the end test  button. The page provides students a final opportunity to check their work on any question.

Suggestions for working with students on this page include:

- Have students notice whether any questions have been Marked for Review. A blue flag and check mark will show next to the number: . Students can click on that number to return to that question. Note that students can still submit a test using the submit test  button even with questions Marked for Review.
- Have students click on a question number to return to any question, whether or not the question has been Marked for Review. Then, from that question, have them click the end

 test  button to return to the review page. Note that the end test  button now appears at the top of every question, not just the last question on the test.

- When students are finished, have them click the submit test  button. Students should only click this button when they are finished answering all questions on the **Training Test**.
- During interim and summative testing, they should wait for directions from a proctor before they click the submit test  button.
- Note that no student answers to the **Training** or **Practice Tests** are saved or scored.

Practice Test Questions

The following tables describe the question types for each grade-level's **Practice Test**. The activities described above for the questions on the **Training Test** can be used with these questions on the **Practice Test**.

Grade 3 Practice Test

Question Number	Question Type
1	Equation/Numeric
2	Equation/Numeric
3	Equation/Numeric
4	Multiple-Choice
5	Equation/Numeric
6	Multiple-Choice
7	Multiple-Choice
8	Equation/Numeric
9	Equation/Numeric
10	Multiple-Choice
11	Equation/Numeric
12	Multiple-Choice
13	Fill-in Table
14	Matching Table
15	Equation/Numeric
16	Multiple-Choice
17	Multiple-Choice
18	Equation/Numeric
19	Multiple-Choice
20	Equation/Numeric
21	Drag-and-Drop
22	Matching Table
23	Equation/Numeric
24	Hot Spot
25	Multiple-Select
26	Equation/Numeric
27	Equation/Numeric
28	Equation/Numeric
29	Combination (Hot Spot and Drag-and-Drop)
30	Hot Spot
31	Matching Table

Grade 4 Practice Test

Question Number	Question Type
1	Equation/Numeric
2	Multiple-Choice
3	Equation/Numeric
4	Multiple-Choice
5	Multiple-Choice
6	Matching Table
7	Multiple-Choice
8	Multiple-Select
9	Equation/Numeric
10	Drag-and-Drop
11	Matching Table
12	Multiple-Choice
13	Matching Table
14	Equation/Numeric
15	Matching Table
16	Multiple-Select
17	Equation/Numeric
18	Combination (Graphing and Hot Spot)
19	Equation/Numeric
20	Drag-and-Drop
21	Equation/Numeric
22	Equation/Numeric
23	Equation/Numeric
24	Equation/Numeric
25	Equation/Numeric
26	Hot Spot
27	Equation/Numeric
28	Equation/Numeric
29	Equation/Numeric
30	Drag-and-Drop
31	Multiple-Choice

Grade 5 Practice Test

Question Number	Question Type
1	Graphing
2	Multiple-Choice
3	Multiple-Choice
4	Multiple-Choice
5	Equation/Numeric
6	Equation/Numeric
7	Multiple-Choice
8	Multiple-Choice
9	Equation/Numeric
10	Equation/Numeric
11	Multiple-Choice
12	Multiple-Choice
13	Equation/Numeric
14	Equation/Numeric
15	Equation/Numeric
16	Multiple-Choice
17	Matching Table
18	Matching Table
19	Equation/Numeric
20	Equation/Numeric
21	Equation/Numeric
22	Equation/Numeric
23	Hot Spot
24	Multiple-Choice
25	Equation/Numeric
26	Matching Table
27	Graphing
28	Equation/Numeric
29	Multiple-Choice
30	Equation/Numeric
31	Drag-and-Drop

Grade 6 Practice Test

Question Number	Question Type
1	Equation/Numeric
2	Matching Table
3	Equation/Numeric
4	Matching Table
5	Equation/Numeric
6	Equation/Numeric
7	Equation/Numeric
8	Multiple-Select
9	Fill-in Table
10	Hot Spot
11	Equation/Numeric
12	Equation/Numeric
13	Combination (Graphing and Drag-and-Drop)
14	Drag-and-Drop
15	Multiple-Select
16	Equation/Numeric
17	Fill-in Table
18	Equation/Numeric
19	Equation/Numeric
20	Matching Table
21	Matching Table
22	Equation/Numeric
23	Equation/Numeric
24	Multiple-Select
25	Multiple-Select
26	Equation/Numeric
27	Equation/Numeric
28	Equation/Numeric
29	Multiple-Select

*Questions 1–8 are non-calculator questions.

Grade 7 Practice Test

Question Number	Question Type
1	Multiple-Choice
2	Equation/Numeric
3	Multiple-Choice
5	Multiple-Select
5	Equation/Numeric
6	Equation/Numeric
7	Multiple-Select
8	Multiple-Choice
9	Equation/Numeric
10	Equation Numeric
11	Matching Table
12	Equation/Numeric
13	Equation/Numeric
14	Multiple Select
15	Equation/Numeric
16	Matching Choice
17	Matching Table
18	Equation/Numeric
19	Multiple-Choice
20	Multiple Select
21	Equation/Numeric
22	Drag-and-Drop
23	Equation/Numeric
24	Equation/Numeric
25	Equation/Numeric
26	Equation/Numeric
27	Equation/Numeric
28	Equation/Numeric
29	Multiple-Select
30	Equation/Numeric
31	Equation/Numeric
32	Hot Spot

*Questions 1–7 are non-calculator questions.

Grade 8 Practice Test

Question Number	Question Type
1	Equation/Numeric
2	Graphing
3	Matching Table
4	Multiple-Select
5	Matching Table
6	Equation/Numeric
7	Multiple-Choice
8	Multiple-Choice
9	Matching Table
10	Multiple-Choice
11	Multiple-Choice
12	Equation/Numeric
13	Drag-and-Drop
14	Multiple-Choice
15	Matching Table
16	Equation/Numeric
17	Multiple-Choice
18	Equation/Numeric
19	Matching Table
20	Hot Spot
21	Equation/Numeric
22	Equation/Numeric
23	Multiple-Choice
24	Equation/Numeric
25	Multiple-Select
26	Graphing
27	Equation/Numeric
28	Fill-in Table
29	Equation/Numeric
30	Multiple Select
31	Equation/Numeric
32	Fill-in Table

*Questions 1–8 are non-calculator questions.

High School Practice Test

Question Number	Question Type
1	Multiple-Choice
2	Multiple-Choice
3	Equation/Numeric
4	Combination Hot Spot and Graphing
5	Multiple-Choice
6	Equation/Numeric
7	Drag-and-Drop
8	Equation/Numeric
9	Hot Spot
10	Multiple-Choice
11	Hot Spot
12	Equation/Numeric
13	Hot Spot
14	Multiple-Choice
15	Multiple-Choice

Question Number	Question Type
16	Equation/Numeric
17	Multiple-Choice
18	Equation/Numeric
19	Equation/Numeric
20	Multiple-Select
21	Equation/Numeric
22	Matching Table
23	Matching Table
24	Combination Hot Spot and Graphing
25	Matching Table
26	Graphing Item
27	Equation/Numeric
28	Equation/Numeric

*Questions 1–6 are non-calculator questions.



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