

Schoolnet: Special Features for Math Items

Quick Reference Card

Schoolnet: Special Features for Math Items

Audience Roles: Student, Teacher, Leadership, Staff with Test Item Administrator

This document is intended for users who know the basics of how to create items and tests in the Assessment Admin module.

Make rulers, compasses, protractors, and calculators—collectively referred to as tools and manipulatives—available to students taking a test online.

When enabled on a test, images will not be scaled to a different size by the system; they will display at the same resolution at which they were inserted into the test. This ensures that measurements taken with manipulatives are accurate.

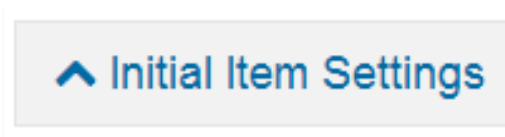
Test item creators are responsible for making sure that images are scaled correctly on printed tests for which students will use their own tools. In addition to the tools and manipulatives that you can add at the test or individual item level, you can also attach formula reference sheets to individual open response items as needed.

Enable or Disable Tools for an Entire Test

You can override item level settings by either enabling or disabling tools for an entire test when you create a test. You can also modify the settings of an existing test in the Test Properties section.

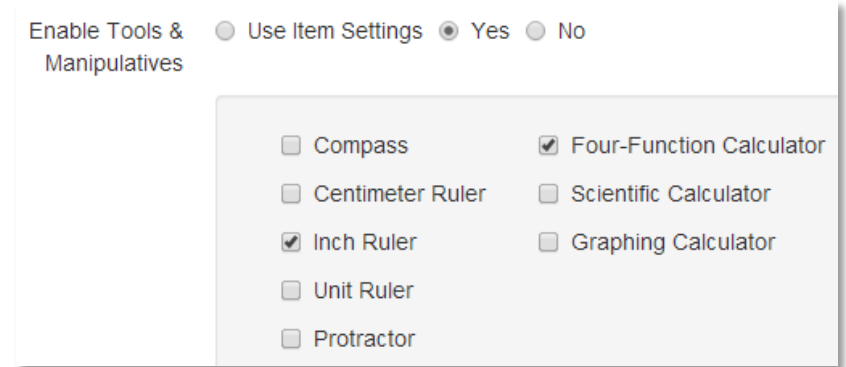
To adjust item settings on the create test page:

1. Click **Initial Item Settings**

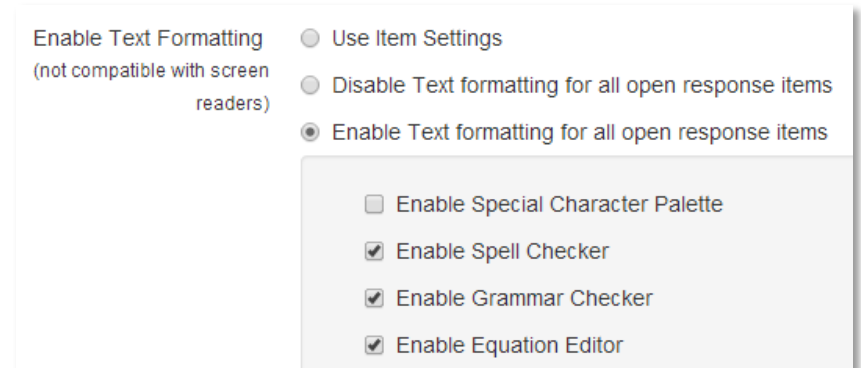


2. To override item settings for tools and manipulatives, select **Yes** or **No** for **Enable Tools & Manipulatives**

If you select **Yes**, choose the features to make available to students.



3. To override the setting for the **Equation Editor** on open response items, in the **Enable Text Formatting** section, choose the needed option



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Enable Tools for Individual Items on a Test

If only some items should have tools and manipulatives, enable them at the item level as needed. When creating a test with these items, select **Use Item Settings** on the **Create Test** page. Note that the **Equation Editor** is available for only online written open response items.

Enable Tools & Manipulatives Use Item Settings Yes No

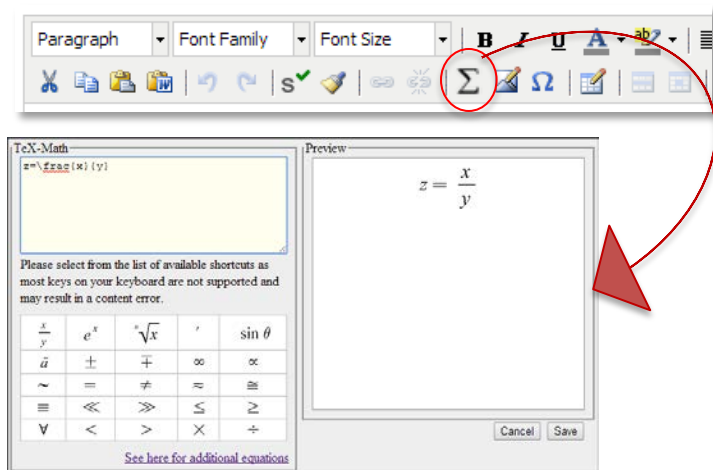
Enable Text Formatting (not compatible with screen readers) Use Item Settings Disable Text formatting for all open response items Enable Text formatting for all open response items

Use the Equation Editor for Creating Math Items

When creating test items, use the equation editor, located in the text editor, to add equations.

To create a math equation:

1. Click the Sigma (Σ) icon in the content editing window



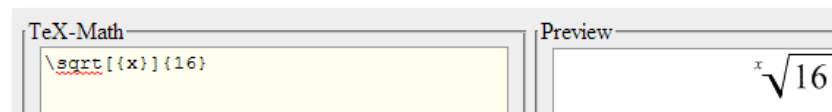
2. In the equation window, select the appropriate math equation elements from the samples in the input area on the left and build your equation

$\frac{x}{y}$	e^x	$\sqrt[n]{x}$	'	$\sin \theta$
\bar{a}	\pm	\mp	∞	\propto
\sim	$=$	\neq	\approx	\cong
\equiv	\ll	\gg	\leq	\geq
\forall	$<$	$>$	\times	\div

[See here for additional equations](#)

3. Clicking on an equation image adds that image to the code window above and to the preview window with your equation in real time

A preview of your equation is shown in the preview area on the right.



4. To keep your work and return to the content editing window, click **Save**

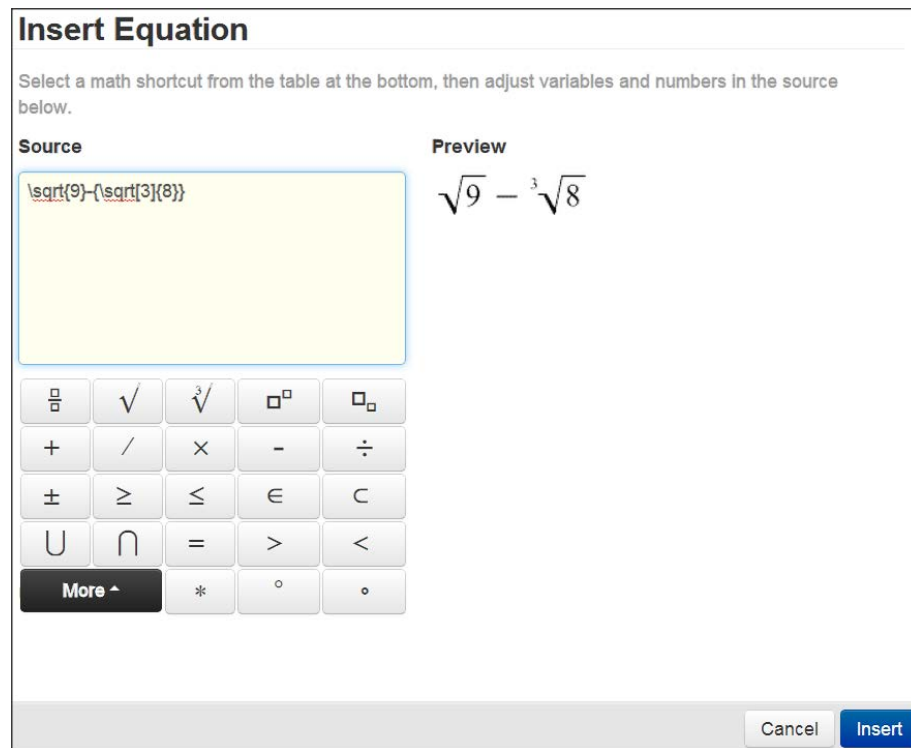
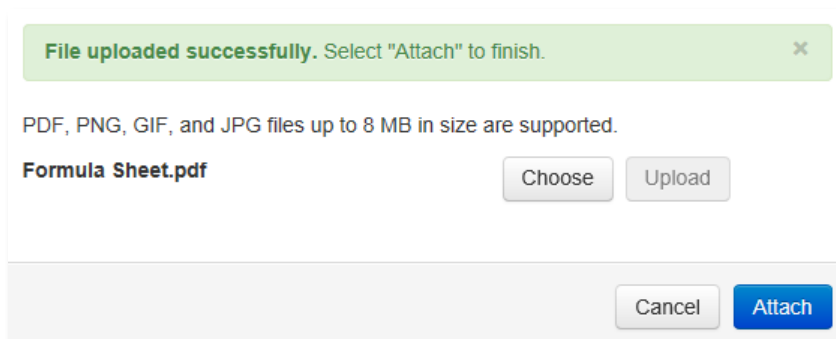
Add Formula Sheets to Open Response Items

To make reference sheets—such as formulas, the periodic table, and units of measure—available to students on a test, attach a formula sheet when creating or editing an open response item. You do not need to enable any additional test or item settings, since the button for formula sheets in test items will always appear where they are attached. To use PDFs, a PDF reader plugin is required for each test tunnel browser.

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To attach a file to an in-progress open response item:

1. Click **Select** under **Formula Reference Sheet**
2. Click **Choose**
3. Select the file and click **Open**
Formula sheets can be PDF, PNG, GIF, or JPG files up to 8 MB in size.
4. Click **Upload**
5. After uploading click **Attach**



Student Online Experience

Depending on what features are enabled, students will see additional tools when testing online.

Equation Editor

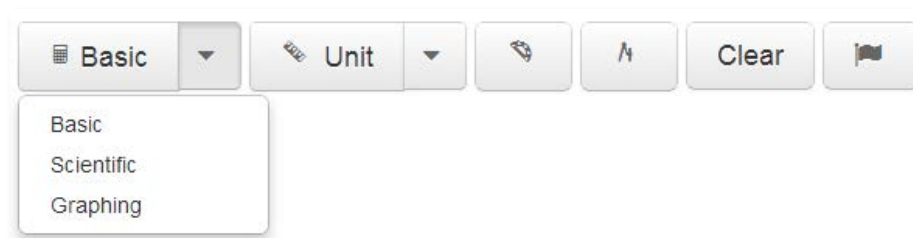
For open response items enabled with the **Equation Editor**, students will see an icon on the text editor.



Each student can create an equation in the source window and click **Insert** to add it to his or her response.

Manipulatives Toolbar

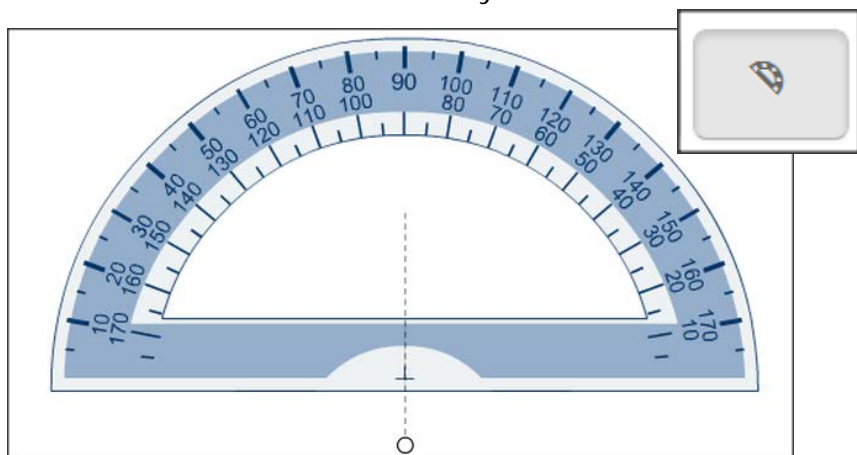
For online tests, students click an icon on the top right of the screen to open a tool or manipulative. Students click **Clear** to remove all drawing marks from the screen.



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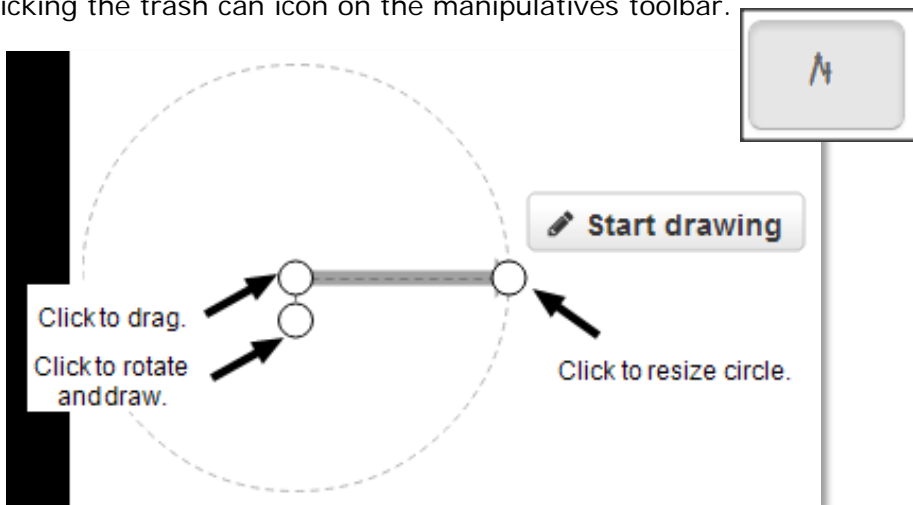
Protractor

To move the protractor, click and drag it. To rotate it, click the small circle below the tool and move your cursor.



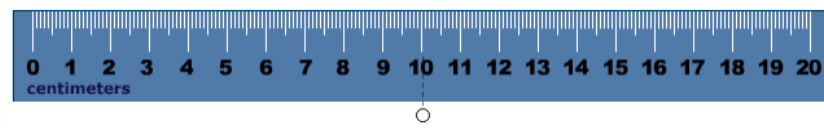
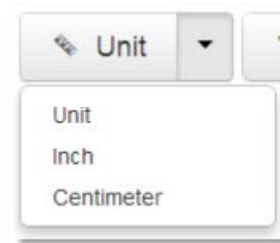
Compass

For the compass, use the three circles to move, rotate, draw, and resize the compass. Students can make temporary marks on their screen which are not captured in results. Clear the marks by clicking the trash can icon on the manipulatives toolbar.



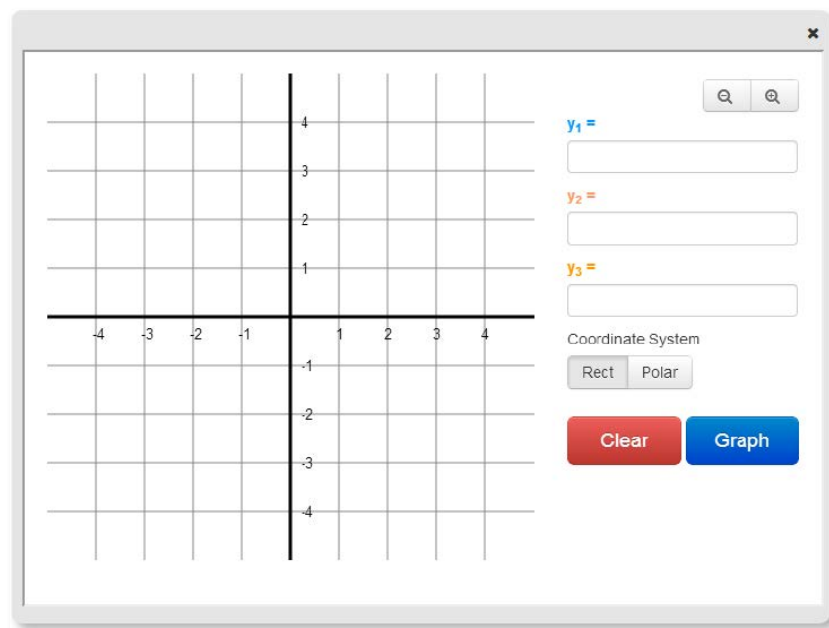
Ruler

Select one of the three available rulers: an inch ruler, a centimeter ruler, and a unit ruler (a ruler without a specific unit of measurement). To move the ruler, click and drag it. To rotate it, click the small circle below the tool and move your cursor.



Graphing Calculator

The graphing calculator graphs rectangular and polar coordinates. Click **Graph** to graph the entered equations, and **Clear** to reset the calculator.



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Scientific Calculator

The scientific calculator has functions not available on the basic four-function version, such as the sine (sin), cosine (cos), and tangent (tan) functions.

