

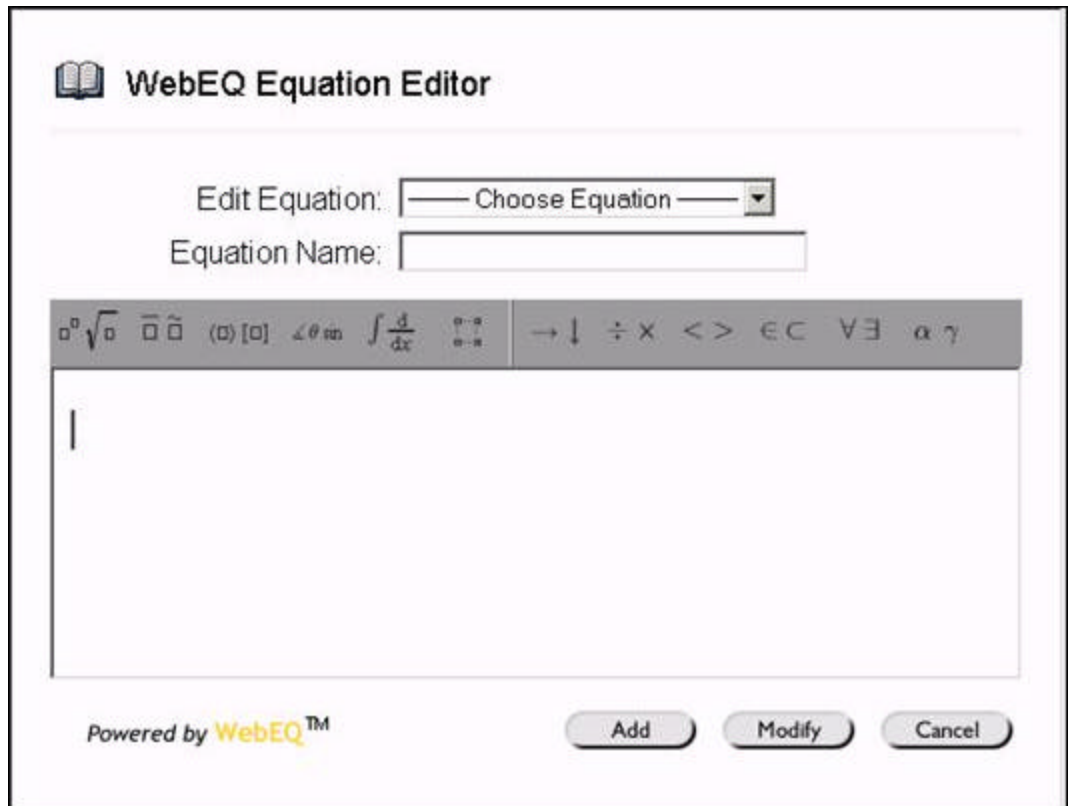
Math and Science Notation Tool - WebEQ Equation Editor

Overview

The Math and Science Notation Tool (WebEQ™ Equation Editor) is a general purpose equation editor designed for working with equations. It enables users to use mathematical and scientific notation throughout the *Blackboard Learning System*. Users have the ability to add equations, edit existing equations and move equations within the Math and Science Notation Tool. All of the Equation Editor symbols are based on MathML, a markup language for math on the Web, which is a subset of XML.

The Math and Science Notation Tool can be accessed from any content or Assessment area. Once added, the equations can be modified like other items within a content area.

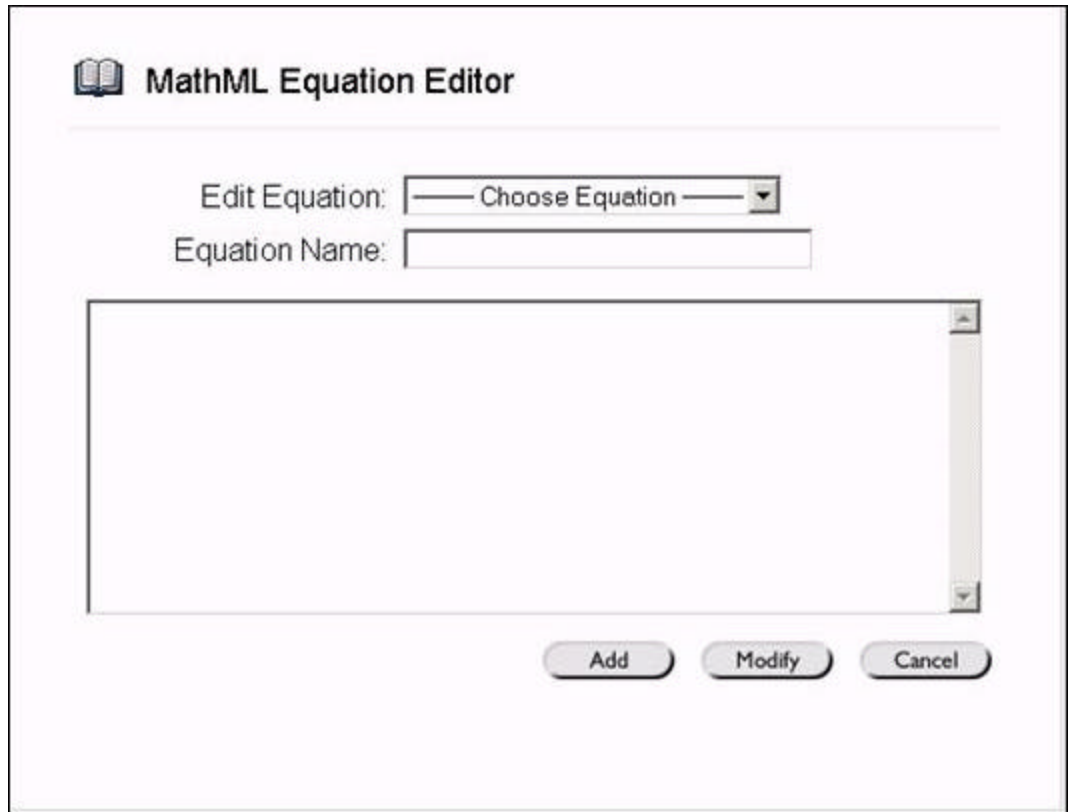
Note: Instructors may include Essay questions on Assessments that use the Math and Science Notation Tool. Students can access the Math and Science Notation Tool to complete the question and the Instructor can view all of Students' work.



The screenshot shows the WebEQ Equation Editor interface. At the top, there is a title "WebEQ Equation Editor" with a book icon. Below the title, there are two input fields: "Edit Equation:" with a dropdown menu showing "Choose Equation" and "Equation Name:" with a text input field. A toolbar with various mathematical symbols is located below the input fields. The toolbar includes symbols for square root, square, cube root, angle, integral, derivative, fraction, arrow, multiplication, less than, greater than, element of, set membership, and Greek letters alpha and gamma. Below the toolbar is a large text area for entering the equation. At the bottom of the interface, there are three buttons: "Add", "Modify", and "Cancel". The text "Powered by WebEQ™" is visible in the bottom left corner.

MathML Equation Editor

The MathML Equation Editor functions in the same way at the Math and Science Notation Tool. Instead of opening with the symbol buttons, a blank text box will appear where users can enter XML.



Find the Math and Science Notation Tool

Click the **Math and Science Notation Tool (+)** or click the **MathML Equation Editor icon (?)** for any text box that accepts math notation. The appropriate equation tool will appear.

Functions

The table below details the functions available on this page.

To . . .	click . . .
access the Math and Science Notation Tool	the Math and Science Notation Tool icon. The Math and Science Notation Tool will appear.
insert MathML	the MathML Equation Editor icon. The MathML Equation Editor will open.

Installation Notes

For best performance on a Windows[®] operating system Blackboard recommends using Internet Explorer 6.0.

For best performance on a Macintosh[®], Blackboard recommends the following.

Step 1 Upgrade the operating system to Mac OS X v10.2

Step 2 Install Netscape[®] 6.2.3 (or a later version)

Step 3 Install the MRJPlug-in. This is located at <http://homepage.mac.com/pcbeard/MRJPlugin/>

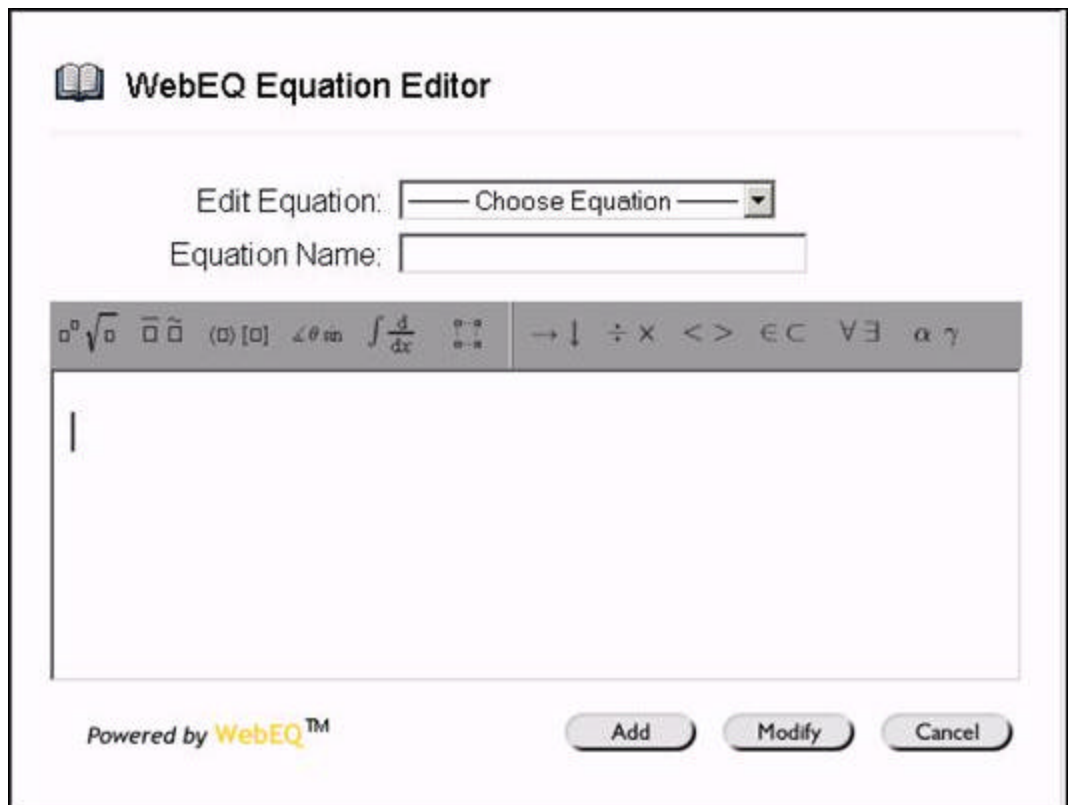
© 2002 Blackboard Inc.

Adding and Editing Equations

Overview

The Math and Science Notation Tool (WebEQ Equation Editor) enables users to use mathematical and scientific notation throughout the *Blackboard Learning System*. Users are able to add new equations and edit equations they have created in the past. Once an equation has been created it can be copied and used again or copied and modified using the WebEQ Equation Editor features.

The MathML Equation Editor is a separate equation editor that functions in the same way as the Math and Science Notation Tool. Instead of opening with the symbol buttons, a blank text box will appear where users can enter MathML.



The screenshot shows the WebEQ Equation Editor interface. At the top left, there is a book icon and the text "WebEQ Equation Editor". Below this, there is a section for editing an existing equation. It includes a label "Edit Equation:" followed by a dropdown menu with the text "Choose Equation" and a downward arrow. Below that is a label "Equation Name:" followed by a text input field. A horizontal toolbar contains various mathematical symbols: a square root, a square, a circle with a dot, a circle with a square, a circle with a triangle, a circle with a diamond, a circle with a cross, a circle with a plus, a circle with a minus, a circle with a divide, a circle with a multiply, a circle with a less than, a circle with a greater than, a circle with an epsilon, a circle with a V, a circle with an E, a circle with an alpha, and a circle with a gamma. Below the toolbar is a large text input area with a vertical cursor. At the bottom left, there is a logo that says "Powered by WebEQ™". At the bottom right, there are three buttons: "Add", "Modify", and "Cancel".

Find the Math and Science Notation Tool

Click the **Math and Science Notation Tool (+)** or click the **MathML Equation Editor icon (?)** for any text box that accepts math notation. The appropriate equation tool will appear.

Functions

The table below describes the functions available in the Equation Editor.

To . . .	then . . .
create a name for the equation	enter a name in the Equation Name: field. To accept the default name do not make any changes.
create an equation	use the equation symbols available on the keyboard to create equations.
modify an existing equation	select the equation from the Edit Equation: drop-down list. The equation will appear on the Editor and can be edited using the Equation Editor features. Click Modify to save the changes. Only equations created in that specific area of <i>Blackboard Learning System</i> can be modified. For example, if the Math and Science Notation Tool is opened in an Assessment, only those equations created in that Assessment are available.
submit the equation and its name	click Add .

Copy Equations

Follow the steps below to copy an equation to a different field on the same Web page.

- Step 1** Create an equation in the Math and Science Equation Editor or the MathML Equation Editor and click **Add** to add it to the field.
- Step 2** Copy the equation, as it appears in the field, and paste it to another field on the same Web page.

Follow the steps below to copy an equation from one course Web page to another. For example, if an equation is created in one Assessment and the Instructor would like to add it to another Assessment.

- Step 1** Create an equation in the Math and Science Equation Editor or the MathML Equation Editor and click **Add** to add it to the field on the first Web page.
- Step 2** Open the MathML Equation Editor and select the equation. Copy the equation as it appears in MathML.
- Step 3** Open the second course Web page where you would like to add the equation. Open the MathML Equation Editor for the selected field where the equation will appear.
- Step 4** Paste the equation into the MathML Equation Editor and click **Add**.
- Step 5** The equation may now be edited in either the MathML Equation Editor or the Math and Science Notation Tool on this page.

Tips and Tricks

If an equation is more than one line or uses a large font size, the equation may be cut off when it appears on the course Web site . To prevent this from happening add an empty line after the final line in the equation on the Math and Science Notation Tool. The entire equation will appear.

© 2002 Blackboard Inc.