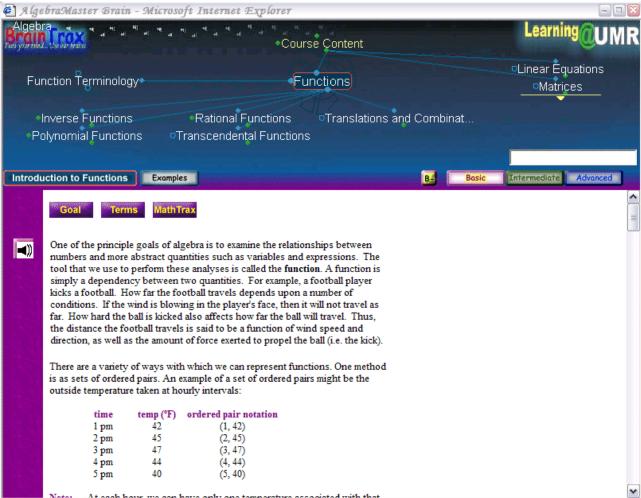


UMR's Algebra Brain Mark Bookout 9 May 2001

As a new Brain Trax user, we want you to be sure you know of all the available features.

This is what the new Brain Trax Algebra Brain looks like:



Notice that the browser shown does NOT have a back button displayed. That is because the brain must be used as the navigational tool. Click on the top thoughts to go back to the root of the matrix. Clicking the lower (child) thoughts moves you closer to the leaf nodes of the matrix. There are no more than 5 levels from top to bottom. There are approximately 130 thoughts, and about 120 separate concepts are covered.

The Brain Trax display has three primary regions, the Upper Region, the narrow Middle Region, and the Lower, or content, Region.

The Upper Region

The upper region is the Brain itself. It is used for navigation around and through the content contained with the Brain *Trax* Algebra Brain.

In addition to the brain itself, in this region you will also find a search box (it is the white box in the lower right hand corner of the blue part). Typing in this box will search the thought names for a partial match. Searching will begin as soon as you type. Note that this does NOT search the content of the thought, only the thought name.

The Middle Region

The middle portion, or Title Window, may contain a variety of discrete items, each of which has some significance for you, the user. Let's look at each of these in turn.

Title: this is a label that identifies the subject matter of the page you are reading. In our example here, it is called "Basic Rules of Algebra".

Level Tabs: Each content page within the algebra brain has 3 levels (where the material permits). These are **Basic, Intermediate**, and **Advanced**.

The Basic level is aimed at students with an 8th grade comprehension of mathematics. These pages have a purple border.

The Intermediate level is aimed at students with a 10th grade level of comprehension. These pages have a Green border.

The Advanced tab is aimed at students ready for algebra at a collegiate level, such as is taught at UMR. These pages have a blue border, and are the default level displayed within the brain at this time.

Clicking one of these tabs will display the appropriate level of information for the subject listed in the "Title Window". In addition to the border color, (purple, green, or blue), the selected tab will be highlighted, or appear brighter when it is active.

Real World Example Tabs: Each advanced level page has one or more real world examples to demonstrate the use of the mathematical concept. Intermediate and Basic levels may have this feature in the future. Teachers who wish to assist the $\operatorname{Brain} \operatorname{Trax}$ team in creating suitable examples should discuss this with the $\operatorname{Brain} \operatorname{Trax}$ office.

The Descending Grades Button: Clicking this button will launch an Interactive Example and Testing System (IETS) session for the displayed content. See provided reference material on the Brain Trax IETS for further detail.

The IETS session will be specific to both a given thought and a content level.

Only authorized students will be allowed to enter the IETS to participate in this activity.

The Lower Region

Student Guide Buttons: Each page will have 3 or more buttons that will, when moused over, display important information for the student. At the top of each page will be "Goals", "Terms", and "MathTrax".

Goals – Mousing over this button will reveal the learning goal for this page

Terms – Mousing over this button will reveal a list of terms that are used on this page, and their definitions

MathTrax – Mousing over this button will reveal a math factoid that is traditionally not provided in the classroom.

Example – Mousing over this button will reveal a description of what the student should learn from this example.

Note that content displayed by these buttons may be different for different levels within a single thought.

Scroll Bars: Notice that the lower section of the example picture shows scroll bars. Use these to see the remainder of the page displayed.

The following buttons may appear in the colored border on the left side of the lower region.

The *e* **Button:** Clicking this button will jump to a related static example within the three level pages. Mousing over the button will tell the user where they will be transferred if they click the button.

The *i* **Button:** This button conveys additional information. It is used to tell the student where they may find more basic or advanced material about the specific component next to the button. Clicking the button will transfer the student to that location on another level's page.

The Speaker Button: Clicking this button will activate an audio stream that discusses the material directly opposite the button. For text material, the audio stream will read the text. For images, it will describe what the student is seeing, and what they should notice about the image. This feature is available on basic level pages only.

The ? Button: Clicking this button will spawn a new window with a question/answer activity for the student. Questions are generally conceptual in nature. Two answers are displayed, along with an explanation after the student has selected his/her answer.

The x Button: Clicking this button will spawn a new window with a dialog to solve a problem. The student will be asked at each step what they should do to solve the problem. (est. available Oct 2001)

The Movie Button: Clicking this button will launch a short movie detailing a specific math operation or task. The movie will appear in a new window. Not all pages will have embedded video.

Contact Information

You can reach UMR's Brain *Trax* developers here:

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