Math Paper lets you use your iPad to do math problems independently. It’s not a calculator. It’s a way to do the math problems you want to do on an iPad. And for people with motor disabilities who can’t hold a pencil, it’s finally a way to gain access to basic and advanced math skill building. For home or school, for kids who want an organized way to learn math, and for individuals who can’t do math any other way, Math Paper offers the best of Universal Design for Learning.

Math Paper has two main areas, four icons, and a variety of keyboards.

Math Paper Grid: the area where you see all your work
The Keyboards: the area where you tell Math Paper what to do. There is one Main Keyboard and additional keyboards that open within this keyboard. (See Keyboards for detail.)
The Icons: You can touch icons to access the following areas: Navigation, File Management, Notes, and Settings. For individuals who cannot reach these icons, they are also available in the MORE Keyboard.
Math Paper is a great tool for anyone who wants to do math independently. And for anyone who wants to create a structure for doing their own math problems on the iPad.

But its Universal Design also offers a deeply thoughtful interface to support individuals with motor disabilities.

Math Paper has been created so that you can access every part of the paper and every function we offer without ever having to leave the bottom area of the iPad. And, with hold times, you can actually just drag your finger over numbers, and let it rest on the number you want to select.

Make sure you explore these features on Math Paper

Hold times – (In Settings) Classic “hold times” allow someone with poor motor access to select a number more easily by ignoring short presses and mis-hits, and only entering a number when the finger rests on it for a specified amount of time.

Accessible Icons – All the Math Paper Icons that are in the corners are also available in the More Folder

Return Key – (In Basic Functions Keyboard) Brings the cursor down a row and to the left starting point, so you don’t have to reach above the bottom of the iPad.

Predictive Cursor – (In Settings and turned on as Default) Moves the cursor to the box on the Math paper that it expects you to need

Carry Functions – (In Basic Functions Keyboard) Moves the cursor to where you will want to put your carry numbers, but – as with all Math Paper functions – requires you to enter the correct numbers
The Paper Grid is the main display area of Math Paper. It is where you’ll see all the work you’re doing.

Highlighted box means that is where a number, symbol, or operand will be entered. You can switch the highlighted box to a different place simply by touching a new box, or using the Arrow Key in the Navigation area to go to a different box.

Pinch or Zoom to view a larger or smaller area of the math paper.

Swipe in any direction to see a different area of the Math Paper.

Alternate Access to these functions is also available within the NAV keyboard.

Enter a number, simply by using the currently highlighted box, or touch another box to select it. That will the box into which your data goes when you touch a button on a keyboard.

The Predictive Cursor on the keyboard will help you enter math efficiently on the keyboard. For example, after you enter a line at the bottom of a column of numbers, the cursor will move backwards. Or you can move the cursor to the beginning of a long algebraic string simply by hitting a return key.
There are 5 main keyboards in Math Paper:

Main Keyboard
- Numbers, main operands, and folders for other functions

Basic Functions
- Functions for doing simple arithmetic. (i.e.: Carry functions, Fraction box)

Advanced Functions
- Symbols and functions for doing advanced math, such as algebra (i.e.: Parentheses, Exponents, etc.)

More
- Settings, and icons. This keyboard contains folders which house even more individual labels in each category (such as weight, speed, etc.)

Fractions
- This special keyboard allows intuitive entering of fractions

Main Keyboard

Numbers
- Touching any number will enter that number into the currently highlighted box on the keyboard and then move the highlight to the next appropriate box. Usually, the highlight will move to the right, but if you are within an operation like adding a column, the Math Paper will usually know that, and move the highlight to the box you are more likely to want next.

Simple Symbols
- Adds the entered symbol. It allows you to enter a symbol into the box. Because Math paper is not a calculator, these symbols do not perform a function.

Summation Line (_)
- Enters a line beneath the box it is in, and beneath every contiguous box that has a symbol in it. If a summation line is already entered, you will see a green light in the button. If so, hitting the button will remove the complete underline.

Foldered Keyboard Sets
- These open up other keyboards with math functions. They are organized so basic math needs are within the 2+4 box and more complex needs are within the [3x5] box.

Basic Functions Keyboard

This keyboard has three basic areas:

Math Needs

Comma and Decimal
- These buttons enter the associated mark into the currently highlighted box. If there is already a comma or decimal in the box, you will see a green light in the button. If so, hitting the button again will remove the comma or decimal.

< or > Symbols
- Enter the operand into the box. Because Math paper is not a calculator, these symbols do not perform a function.

Long Division
- Creates a long division field and continues the line above numbers as you enter numbers. Also, tells Math paper to bring the cursor above that line after you put a number to the left of the vertical.

Fraction
- Opens the Fraction Menu.

Navigation Functions

Return Key
- Brings the cursor down a row and to the left-most contiguous box above it.

Left Arrows
- Moves the cursor one space left, for when you want to add an operand, such as “+”

Carry Functions
- Tells the cursor to take you through the carry navigation sequence associated with the operation you press, while requiring you to do the actual math.

Comma and Decimal
- These buttons enter the associated mark into the currently highlighted box. If there is already a comma or decimal in the box, you will see a green light in the button. At that point, hitting the button again will remove the line. These comma and decimals are linked to the ones in the Basic Keyboard. You can use them interchangeably.

Delete
- Deletes contents of current box and moves the cursor up. Home. Returns to the last menu.

Advanced Functions

Symbols (parentheses, greater than / less than, percent, Pi) and variables (x, y, a, b, d)
- Enters the symbol into the box. Because Math Paper is not a calculator, these symbols do not perform a function.

Root Sign
- Enters the root symbol and asks you to choose the magnitude of the root. Also tells Math Paper to continue the line above the numbers for as long as you enter sequential numbers.

Exponent Sign
- Tells Math Paper to put an exponent into this box. Assumest that you have already entered the number to be raised to a power.

Delete
- Deletes contents of current box and moves the cursor up. Home. Returns to the last menu.

More

This area contains two types of information: Folders with important labels and symbols, and icons for controlling Math Papers important operations.

Folders
- Offers two types of folders:

Letters
- These folders open up open folders that are associated with key math areas, such as Time, Distance, Money, Greek Symbols, etc. where you will find specific labels you might need. After hitting the buttons within these folders, you will return to the main keyboard.

Letters
- These folders open open folders that you might want to use for a variety of reasons. These keyboards stay open until you close them.

Home
- Pressing this icon opens the same areas that are opened by the icons on the main screen. They appear here to support accessibility for individuals who can't reach above into the screen.
This area allows individuals with motor access problems to navigate Math Paper without ever having to touch the Paper Grid or having to move your finger out of the areas of the keyboards. It also allows you to edit your document. This Keyboard is broken into three areas.

EDIT AREA - Allows you to edit, highlight, and copy strings of numbers, equations, etc.

Select – Touching the Select Button initiates a select sequence and turns this button to "select Start"

Select Start – You are prompted to choose a box for the upper right hand corner of the area you want to select. The area can be one box, a line of boxes, or a grid of boxes. Once a box is chosen, the button turns to Select End.

Select End – You are prompted to choose a box for the lower left corner of the area you want to select. Once selected, the entire area is highlighted in green. You will then be able to cut, copy, or delete this area.

Cut – Cuts the current selection and copies to a pasteboard

Copy – Copies the current selection into a pasteboard

Highlight – Highlights the selected areas. Useful for calling attention to specific numbers, such as an answer to a problem.

Paste – Pastes the content of the clipboard (anything you chose to copy) into a new area. The button you highlight will be the upper left hand corner and all boxes will fill in from there. If you accidentally copy over boxes that already have content, you can undo this action and move the copied selection somewhere else.

Delete – Deletes the currently selected area.

NAVIGATION AREA

Arrow Buttons – Moves the cursor from its current position one box at a time in the direction of the arrow.

+/− – Zooms the page in or out

OTHER

Redo – Redoes the last operation that was “undone

Undo – Undoes the last operation

Page Up/Down – Moves the page up or down to show additional areas that are part of the same document

Fit to Page – Sizes the page so that you can see more of the content on it. Hitting the button again reduces the page to the last size.

Home – Leaves the Navigation/Edit area.
Note: you can also leave the page by touching the Icon a second time
Hitting the File Management icon brings up a keyboard that lets you do all file management functions.

**New** – Creates a new document. As with all new documents, you must name and save it before closing.

**Open** – Brings up the Open Document Menu. You can open a folder or by document by double tapping or by using arrows keys to navigate to the document you want and then hitting Select.

**Save** – Saves the current Document and returns to usage mode

**Save as** – Brings up a menu and keyboard to let you save a copy of the document with a different name.

**Delete** – Lets you choose documents to delete.

**Send Document** – Brings up a new Menu that lets you Email the document
You can send a doc as either a mpf (Math Paper File) which will let the recipient open and work on the document or as a pdf document, which is for handing in work.

**Sticky Notes** – Brings up a sticky note where you can add text.
This is useful for preparing a problem for an individual to answer. For example, a teacher can write, “Six children go to the movies. Tickets are $4 each. How much money do the kids need?”

You can also use the sticky notes to write notes about your own problems.

Sticky notes are saved with the document they are associated with. You can save different sticky notes with different documents
Math Papers settings provide great options for increased personalization and customization.

As with most settings menus, you can simply touch the controls to choose your options. But Math Pad settings are also designed to be accessible for people who cannot easily reach higher on the iPad. To use the Accessible settings, use arrow keys to go from one setting to the next. Use the blue “touch” key to change the settings, or open the instructions PDF. Hit the Home button to return to the main menu.

**Skin** – Choose the appearance of your Math Paper

**Hold time** – If you have access issues, increase the “Hold Time.” You can then drag your finger over the keyboards without activating numbers. When you hold your finger for the set time, you will then activate the key.

**Number Window Scrollable** – Turns the ability to scroll and pinch/zoom on and off.

**Keyboard Sounds** – Turns keyboard sounds on/off

**Predictive Cursor** – If you turn off predictive cursor, you will have to move the cursor every time. For some schools, this may be a prerequisite for taking a math test.

**Read instructions** – The instruction manual