

## MathPad Plus v 1.0.1 Basics

### Basic Process

MathPad Plus is an onscreen math worksheet. It allows students to work through addition, subtraction, multiplication and division problems including the use of fractions and decimals directly on the computer just as they would using pencil and paper. Students can also work with onscreen manipulatives to help understand fraction and decimal concepts.

There are some limitations to the computations you can do in MathPad Plus:

- will not compute negative numbers
- does not support multiple arithmetic operations except addition or multiplication problems
- does not support parentheses or other grouping mechanisms

### Student Use – Completing Worksheets

1. Go to File – Open and select desired worksheet to open.

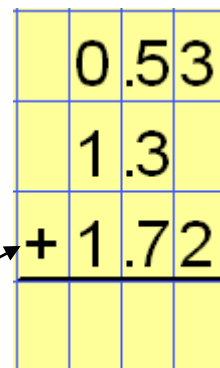
2. Position cursor in box where you want to type your first number.

NOTE: You can type in numbers vertically or horizontally.

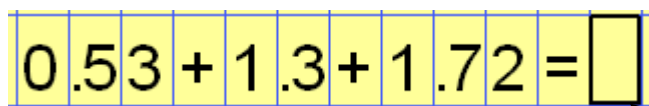
If using the horizontal view:

Continue to position your cursor where you want to enter your next number(s).

Be sure to include an operation sign before typing the last number to be calculated. This will insert a separation line between your problem and solution.



		0.53	
		1.3	
		+ 1.72	



0	.	5	3	+	1	.	3	+	1	.	7	2	=	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

A black rectangle appears in the active box (where you clicked with your mouse).

### Horizontal View or Vertical View:

1. Click on one of the numbers in the problem.
2. Click the “horizontal/vertical” icon on the Math and Numbers toolbar.



### Editing/Deleting Individual Numbers:

1. Click in the box of the number you want to change/delete.

To edit the number, just type the new number to be inserted.

To delete the number, press the “Delete” or “Backspace” key or click the “Eraser” icon on the Arrows toolbar.

**Deleting a Group of Numbers:**

1. Drag the mouse to select a group of numbers, entire problem, etc.

NOTE: A box will appear around your selection.

2. Press the “Delete” or “Backspace” key or click the “Eraser” icon on the Arrows toolbar.

**Moving from problem to problem:**

Select “Next” or “Previous” icon on Command toolbar or go to Math – Next Problem or Math – Previous Problem.

**Typing Commas in numbers**

Type number, then comma.

**Typing Decimals in numbers**

Type period then number. For decimals, smaller than 1, you need to first type a zero (e.g. 0.5).

Deleting the Decimal Point

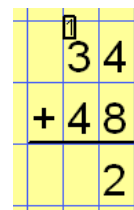
If you accidentally created a decimal number and want to remove it, click on decimal # and type a period (.).

**Regrouping, Crossing Out and Carrying Numbers:**To Cross Out/Regrouping:

1. Click on the number to be crossed out
2. Click on the “Cross Out” icon on the Numbers toolbar
3. Click on the “Regroup” icon on the Numbers toolbar
4. Type the desired number in the small box.

To Carry:

1. Click on the top number of the column where the carried number is to be recorded.
2. Click on the “Regroup” icon on the Numbers toolbar
3. Type the desired number in the small box.

**Typing Fractions**

1. Click on the Fraction icon.
2. Type the numerator, position mouse/click or use down arrow to enter the denominator.
3. Position mouse/click or use right arrow to enter the operation.
4. Click on the Fraction icon.
5. Type the numerator, position mouse/click or use down arrow to enter the denominator.
6. Click Horizontal/Vertical icon to change orientation if desired.

Reciprocal button:  
Press 1<sup>st</sup> time  
converts to improper  
fraction, press again,  
flips

**Checking and Starting Over****Checking answers**

1. Position cursor to the right of the problem answer.
  2. Click the Select Answer icon (larger check icon) on the Commands toolbar.
- If the answer is correct, “OK” will display at one side of the problem at the top of the page.

### Checking scratch work

At any time students can do scratch work elsewhere on the worksheet (e.g. to check calculations).

To check the accuracy of the scratch work:

1. Drag to select the entire calculation.
2. Click the Check Selection icon (smaller check icon) on the Commands toolbar.

### Resetting Problems

At any time, the student can erase all of the work on a problem and start over.

1. Display the desired problem.
2. Click on the Trash Can icon (top far right) of the Commands toolbar or go to Edit – Reset Page

## Printing

### Printing Problem Lists

1. Go to File – Print Problem List
2. Select to print entire list or a range of problems.
3. Click “Okay”.

### Printing a Specific Problem

1. Display the desired problem.
2. Go to File – Print This Problem.

## Manipulatives Mode

Click on Manipulatives Icon (or Window – Manipulatives).

The Numbers and Math Toolbars disappear ... replaced by Manipulatives Toolbar.

Can use to help build problems or assist in answering problems.

Students can copy work done in this mode into the worksheet problem to use as a reference.

### Types of Manipulatives

Students can work with circles and bars to represent fractions or grids to explore decimal concepts. Each type of manipulative comes with its own set of icons.

### Trading Up/Trading Down

This feature helps students understand equivalent fractions.

Student selects portions of a whole they have created and can then trade up or down to see equivalent fractions (if any).

### Arrange Overlapping Manipulatives

This function helps students compare relative sizes (greater than, less than, equal to).

1. Drag one manipulative item to partially overlap the second one.
2. Click the Arrange Overlapping icon to bring the back piece to the front.

## Snap Together

Allows students to move randomly placed pieces together (removes blank spaces).

## Teacher Use – Preparing Assignments/Worksheets

Teachers can choose from sample problems included with the package, type in their own problems or *import* problems from other word processing programs (Word, etc.) ... as text files.

1. Open MathPad Plus
2. Click “Teacher”.
3. Enter password (teacher) and click “Okay”.

## Using MathPad Plus’s Problem Lists:

1. Go to File – Open – Click “Assignments” button.
2. Select the desired Problem List and click “Open”.

### To edit Problem Lists

1. Go to desired problem to edit.
2. Position cursor and make desired changes OR Math – Delete Problem
3. Go to File – Save As (to give modified problem list a different name without changing the original document).

## Creating Problem Lists manually in MathPad Plus:

1. Go to File – New
2. Type the desired problem.
3. Click “New Problem” icon on toolbar (or Math – New Problem)
4. Continue entering problems until done.
5. Save problem list. (File – Save As).

Assignment Type – When students opens file, will open as untitled (preserving assignment problem list)

Worksheet Type – For use with individual student; doesn’t preserve problem list.

### **You can include a graphic in a problem:**

1. Select and copy the desired image
2. Position the cursor where you want the graphic to go in MathPad Plus
3. Paste the image

## Importing Problem Lists from a Word document:

First, you need to create the problem list in Word:

1. Open a new document.
2. Type the problems:
  - Use “/” to separate numerator from denominator.
  - Use “\_” to separate unit number from fraction.
  - To enter division symbol: Alt +”0247”, release Alt
  - Type text in quotes to be recognized as text.
  - Numbers and equations should be typed in horizontal format.
  - End each problem with “#” so the next problem will go on a clean problem page.
3. Save the document as a “text only” file (.txt).

### Importing the Problem List

1. In MathPad Plus, go to File – Import.
2. Locate the desired document and click “Open”.
3. Go to File – Save As to save the file as an Assignment Type in MathPad Plus.

## Preferences/Options

### Two ways to navigate through the problem:

- **Automatic Navigation (helps guide student through problem)**

The entry box automatically moves to the “best guess” position. It requires fewer movements to solve the problem.

1. Go to Settings – check Auto Navigation

- **Manual Navigation**

The student has to position the entry box each time (i.e. click area for where regrouping needs to take place, then click regroup).

1. Go to Settings – Uncheck Auto Navigation

### Math Functions

Functions like regrouping, crossing out, creating fractions, etc. can be performed by clicking on the icons on the Math and Numbers Toolbar, selecting from the Math menu or using keyboard equivalents:

Regroup	Com-G	Fraction	Com F
Remainder	Com-R	Long Div	Com /
Reciprocal	Com-B	Cross Out	Com Y
Hor/Vert	Com H		
Text	Com T		

### Display

Customizable display allows adjustments of colors, fonts, etc.

Font menu, Size menu, Style menu, Setting menu (colors)

### Speech Options

Speech options allow problems to be read aloud – can read number ... read row (select row first).

NOTE: Will not read text of word problems aloud.