[https://youtu.be/--b3Gb3sFRE](https://youtu.be/--b3Gb3sFRE" \t "_blank)

Paper folding

MathJax - http://docs.mathjax.org/en/latest/basic/mathematics.htmls

* Do we want them to be able to shade in each block of the paper? Column/row slider (purple/green dots) excludes this capability.

FRACTION COMPARE Manipulative

* 3 paper objects
* Middle for toggle overlap – mirrors (continuous) current state of other two squares
  + Overlap can only work if equal rows and columns or larger denominator is divisible by smaller denominator.
  + Auto-disable overlap on invalid (denom not compatible) left/right containers?

FRACTION ADD

* 2 Paper objects
* Displaying the sum total in the same containers may be confusing?
* Find sum – how do we want to display the results on situations like 7/9 + 4/13. The sum would be 127/117. This raises a few questions on handling these cases;
  + Do we want to force equal or divisible denom between the two containers? This would resolve all issues but will limit manipulatives functional flexibility.
  + Remove the max limit of 12 row/col, but only when find sum is selected. This would require clearing the “result” after every find sum selection – Disable all functions until the user selects “reset”.
  + Find sum does not modify the blocks below and only displays the math text above.
* “Define” button function unclear
* “Repartition” button function unclear
* “Display” – do we want this functionality on all paper folding manipulatives?
* “arrow buttons” – Move all possible blocks from side to side, Move one block? How does this differ from “find sum”?

MULTIPLICATION

* Mixed number fractions may be confusing. In the example 1 ½ \* 1 ¼ for the input values ½ of the container is equal to 1. And for the result ¼ of the container is equal 1. I would suggest limiting the single container to proper fractions to resolve these issues.
* Multiplication can only be done on col slider \* row slider.

MAX\_DIVIDER = 12;

PAPER Object

* Container
  + Children
    - Row
      * Color blue
      * Opacity .7
    - Col
      * Color blue
      * Opacity .7
    - RowDrag
      * Color green
      * Opacity .7
    - ColDrag
      * Color purple
      * Opacity .7
  + Properties
    - Rotation