Matrix Calculator Docs
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Extra Added Content

I modified graphics.py to utilize a few more features of Tkinter, such as right clicking in the calc and edit mode to save a matrix to a variable, and mouseover for previewing a matrix in the calc mode. The biggest change is my graphics_scale.py library built on top of graphics.py. Its main features are a powerful container system, for keeping things grouped together, as well as everything being created in terms of percentages, instead of absolutes. This makes designing easier and also lets you change the size of the window, and everything will scale the same ratio. It also functions as a normal calculator, so you can do normal math in it as well.

Calculate Mode

Calculate gives you access to any stored matrices, as well as other operations. Either type in the proper letter, or click a button to write up an expression. When you mouse over one of the matrices, a popup will appear with the matrix values. If you right click one of the buttons, it will save the current answer as that matrix. Any calculated matrix will be stored in ANS (mouse over to see the value of that matrix). The operators are as follow:

- + (plus operator) Adds two matrices together
- - (minus operator) Subtracts two matrices
- * (matrix multiplication) Multiply two matrices together
- / (division operator) This will only work for real numbers (can't divide matrices)
- ^ (exponent operator) Multiply a value by itself x amount of times
    - Type in -1 to calculate the inverse of the matrix (must be nxn matrix)
- (and), (parenthesis) To support BEDMAS, and to provide more flexibility to the user
- AB => A*B (implied multiplication) normally in Python you need to type A*B, but thanks to regexes, this problem has been solved
- A(B+C) => A*B + A+C (implied commutative multiplication)
- A^-1 => (A^-1)

Enter/Edit Mode

Enter/edit mode allows you to create new matrices from 1x1 to 10x10, and store them in any matrix A-J. Left click any of the matrix buttons to open and edit it, and right to click save the currently shown matrix to it. A helper text will show up if you type something in incorrectly, or confirming that you saved to the matrix. All matrices are stored in a local text file, and can be edited directly in the text file (just make sure to change the definitions for the matrix size, otherwise any errors that occur are not my fault).