This is a list given to us by the Quorum Programmers. Note: Whatever is after the : represents the type of output, for example, void means nothing is outputted. The beginning + is not used in the command.

use Libraries.Compute.Matrix it's dangerous to go alone. Use these!

+ Get(integer row, integer column) : number

+ Set(integer row, integer column, number value) : void

+ SetSize(integer rows, integer columns) : void

+ SetSize(Matrix matrix) : void

+ GetSize : integer

+ GetColumns : integer

+ GetRows : integer

+ GetColumn(integer column) : Matrix

+ GetRow(integer row) : Matrix

+ SetRow(integer row, Matrix matrix) : void

+ SetRow(integer index, number value) : void

+ SetColumn(integer column, Matrix matrix) : void

+ SetColumn(integer index, number value) : void

+ Add(number value) : Matrix

+ Subtract(number value) : Matrix

+ Multiply(number value) : Matrix

+ Divide(number value) : Matrix

+ AddElements(Matrix values) : Matrix

+ SubtractElements(Matrix values) : Matrix

+ MultiplyElements(Matrix values) : Matrix

+ DivideElements(Matrix values) : Matrix

+ Multiply(Matrix values) : Matrix

+ Fill(integer rows, integer columns, number value) : void

+ FillByRow(integer rows, Matrix matrix) : void

+ FillByColumn(integer columns, Matrix matrix) : void

+ SetLowerThreshold(number cutoffValue, number fillValue) : Matrix

+ SetUpperThreshold(number cutoffValue, number fillValue) : Matrix

+ FlipVertical() : Matrix

+ FlipHorizontal() : Matrix

+ GetSubMatrix(integer offsetRow, integer offsetColumn, integer rows, integer columns) : void

+ Reshape(integer offsetRow, integer offsetColumn, integer rows, integer columns, number fillValue) : Matrix

+ RotateLeft() : Matrix

+ RotateRight() : Matrix

+ Shift(integer offsetRow, integer offsetColumn, number fillValue) : Matrix

+ Transpose : Matrix

+ GetMaximum : number

+ GetMinimum : number

+ GetTotal : number

+ GetMean : number

+ GetModesAsText : text

+ GetMedian : number

+ ToText : text

Credits: **Innovators Developing Accessible Tools for Astronomy (IDATA)**, officially known as *Research Supporting Multisensory Engagement by Blind, Visually Impaired,* and *Sighted Students to Advance Integrated Learning of Astronomy and Computer Science,* and the resulting curricular resources, Afterglow Access software, and project research were made possible with support from the U.S. National Science Foundation's STEM+C program (Award 1640131). IDATA institutional collaborators include AUI, GLAS Education, Linder Research & Development Inc., Logos Consulting Group, TERC, University of Nevada – Las Vegas, University of North Carolina at Chapel Hill, and Universidad Diego Portales. Individual consultants on the project include Kathy

Gustavson and Alexandra Dean Grossi. IDATA Teacher collaborators in the U.S. include Amanda Allen, Jacqueline Barge, Holly Bensel, Neal Boys, Tim Fahlberg, Kristin Grender, David Lockett, Matthew McCutcheon, Caroline Odden, Michael Prokosch, Kara Rowbotham, Rick Sanchez, and Barbara Stachelski. IDATA Student collaborators in the U.S. include Evan Blad, Naleah Boys, Ellen Butler, Jayden Dimas, Riley Kappell, Joseph Murphy, Logan Ruby, Alex Scerba, Charlize Sentosa, Meg Sorensen, Remy Streichenberger, Trevor Warren, and others. IDATA Undergraduate Mentors include Tia Bertz, Katya Gozman, Chris Mathews, Kendall Mehling, Andrea Salazar, Ben Shafer, Alex Traub, and Sophia Vlahakis. Special thanks to the IDATA external advisors including Nic Bonne, Al Harper, Sue Ann Heatherly, Russ Laher, Luisa Rebull, Ed Summers, and Kathryn Williamson.