

# Matrices

- Matrix: 2D array, all elements of the same type
- Index like a data frame:
  - `matrix[row, column]`
- Can name rows and columns; but can't use \$ notation
- Special operators and functions for matrix operations
  - `%*%` multiplication
  - `t()` transpose
  - `solve()` inverse
  - <https://www.statmethods.net/advstats/matrix.html>

# Lists

- Can hold objects of different types - numbers, character, data frames, matrices — anything
- Can be nested
- Elements can be named or not
- Data frames are a special type of list.
  - Columns are the list elements