

#### Function descriptions

`I = eye(10);` Creates an identity matrix of size 10x10

`A = [zeros(2,2), rand(2,2)];` Creates a matrix with a 2x2 matrix of zeros and a 2x2 matrix of random floats between (0,1)

`a = A(:,2)` Returns the 2nd column of the matrix A, The operation uses 1-based indexing

`b = reshape(ones(10,1)*ones(1,10), [1,100]);` Reshapes the 10x10 matrix of ones into a 1D array of length 100 of ones. Reshape is COLUMN-WISE.

`a = sort(rand(1,100));` Creates and sorts a 1D array of 100 floats between (0,1)

`b = a([end:-1:1]);` A reversed array of a, from sorted ascending to descending

`[u,v,w] = svd(rand(3,3));` Calculates the singular value decomposition of a random 3x3 matrix of values between (0,1)