

Group 7

J symbol (vertical-bar-dot): $|.$

Monadic case:

Name: *reverse*

Rank: $_$ (infinity/unbounded) – applies to entire array

Definition: $|. y$ returns y with the *order of the items* of y reversed.

Please also include explanations for your answers to some of the following questions:

What is the reverse of a string?

What is a palindrome?

What is the reverse of a single number?

What is the reverse of a matrix?

Dyadic case:

Name: *rotate*

Rank: 1 (left); $_$ (right) – applies to a vector on the left and the entire array on the right

Definition (scalar x): $x |. y$ rotates the *order of the items* of y by x positions. Items are rotated to the *front* if x is *positive*, and to the *back* if x is *negative*.

Definition (vector x): $x |. y$ rotates the *order of the elements aligned along axis i* of y by x_i positions, where x_i is the *element at position i* of x . Items are rotated to the *front* if x is *positive*, and to the *back* if x is *negative*.

Please also include explanations for your answers to some of the following questions:

What is the result when x is positive/negative number and y is a vector?

What is the result when x is positive/negative number and y is a matrix?

What is the result when x is vector containing positive and negative numbers?