## Group 10

## J symbol (hash):

## Monadic case:

Name: ravel (list)
Rank: _(infinity/unbounded) - applies to entire array
Definition: , $\mathbf{y}$ converts an array into its list of elements.
Please also include explanations for your answers to some of the following questions:
What is the result when y is a scalar, vector, or a matrix?
What is the difference between list of a scalar (e.g., ,10) and a scalar (10)?

## Dyadic case:

Name: append
Rank: _(left); (right) - applies to the entire array on the left and right
Definition (simple): $\mathbf{x}, \mathbf{y}$ joins array y to the end of array x .
Definition (complete): $\mathbf{x}, \mathbf{y}$ joins array y to the end of array x after:

1. reshaping atomic arguments - if either x or y arguments is an atom, then the atomic argument is reshaped to the shape of the items of the other argument;
2. prependent unit (length 1) axes until $x$ and $y$ have the same rank;
3. padding with fill elements until the items of $x$ and $y$ have the same shape.

The fill element is 0 for numeric arrays, space for literal arrays, and empty box for box arrays.
Please also include explanations for your answers to some of the following questions:
What is the result when x is a vector and y is a vector (e.g., 'abc' , 'xyz')?
What is the result when $x$ is a scalar and $y$ is a matrix (e.g., $9, i .23$ )?
What is the result when x is a vector and y is a matrix (e.g., 1020304050 , i.2 3)?

