

lapply and sapply

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lapply

Apply a function to each item in a **list**.

$$my.list = \left[\begin{bmatrix} 0 \\ 1 \\ 2 \end{bmatrix}, \begin{bmatrix} 9 \\ 10 \end{bmatrix}, \begin{bmatrix} -1 \\ 1 \\ 0 \end{bmatrix} \right]$$

$$lapply(my.list, mean) = \left[\begin{bmatrix} 1 \\ 9.5 \\ 0 \end{bmatrix}, \begin{bmatrix} 9 \\ 10 \end{bmatrix}, \begin{bmatrix} -1 \\ 1 \\ 0 \end{bmatrix} \right]$$

$$lapply(my.list, mean) = [1, 9.5, 0]$$

Note: `lapply` will return a `list` object!

`typeof(lapply(my.list, mean))` is `list`

sapply

Execute `lapply`, then if possible simplify by converting the output from a list to numeric vector.