op	Array **op** Scalar	Scalar **op** Array	Array **op** Array
+, -	**Dot not permitted** [1 2 3] + 4 = [5 6 7]	**Dot not permitted** 9 – [1 2 3] = [8 7 6]	**Dot not permitted** [1 2 3] + [4 5 6] = [5 7 9]
*	**Dot makes no difference** [1 2 3] * 2 = [2 4 6] [1 2 3] .* 2 = [2 4 6]	**Dot makes no difference** 2 * [1 2 3] = [2 4 6] 2 .* [1 2 3] = [2 4 6]	**No dot: array operation** **Dot: element by element** [2 3 4].*[1 2 3] = [2 6 12]
/	**Dot makes no difference** [2 4 6] / 2 = [1 2 3] [2 4 6] ./ 2 = [1 2 3]	**No dot: illegal (1)** **Dot: see below** 8 ./ [1 2 4] = [8 4 2]	**No dot: array operation** **Dot: element by element** [2 6 12] ./ [1 2 3] = [2 3 4]
^	**No dot: array operation (2)** **Dot: see below** [1 2 3] .^ 2 = [1 4 9]	**No dot: array operation (3)** **Dot: see below** 2 .^ [1 2 3] = [2 4 8]	**No dot: illegal** **Dot: element by element** [2 3 4].^[1 2 3] = [2 9 64]

(1) Array operation and dimensions guaranteed to be invalid.
(2) The array (which must be square) is raised to the specified power.
(3) S^A is (e^A)^S, where e^A is the matrix exponential of A. Don't worry about this.

Points to remember:

- Never use a dot with the + and - operators
- Unless you actually want array multiplication, division, or exponentiation, you can always use a dot with the *, / , and ^ operators