Modules manual

Module	Description and examples
IN	If there are no polynomials present, gives the next input. Multiple IN modules will each send a copy.
OUT	Submits an output. Whether it is correct or not will be highlighted in green or red.
RAISE	Raises the index of the exponent in each term, effectively multiplying the polynomial by x. RAISE $[3x^5 - 7x + 2] = [3x^6 - 7x^2 + 2x]$
LOWER	Lowers the index of the exponent in each term and discards the constant. LOWER $[3x^5 - 7x + 2] = [3x^4 - 7]$ (Note that the constant is discarded.)
DER	Returns the derivative.
INT	Returns the indefinite integral, with the constant of integration always set to $C = 1$. INT $[4x^3 + x^2] = [x^4 + \frac{1}{3}x^3 + 1]$ INT $[0] = [1]$
LEAD	Returns the leading coefficient. LEAD $[3x^5 - 7x + 2] = [3]$
CONST	Returns the constant term. CONST $[3x^5 - 7x + 2] = [2]$
DEG	Returns the degree of the polynomial or consumes [0]. DEG $[2x^7 - 4x^3] = 7$ DEG $[-3] = 0$ DEG [0] is instead consumed.
NEG	Multiplies by -1 (negative one)
TAKE	For non-constants: returns what what is left after taking away the leading term. For constants: takes reciprocal, or consumes [0]. TAKE $[3x^5 - 7x + 2] = [-7x + 2]$ TAKE $[-3] = \left[-\frac{1}{3}\right]$ TAKE [0] is consumed.
COPY	COPY shoots out two copies of the incoming polynomial perpendicularly.
POW	When a positive integer $[a]$ passes through POW it is transformed to $[x^a]$. Negative constants pass through freely. Everything else is consumed. POW $[2] = [x^2]$ POW $[-4] = [-4]$ POW [-1/2] = [-1/2] POW [5/3] is consumed. POW $[x^2]$ is consumed.
SUBS	Consumes everything. After consuming both a non-constant and a constant polynomial it returns the value obtained by substituting the constant in the polynomial. SUBS $\left[x^3 - \frac{x^2}{4} + 5\right]$ $[2] = [12]$ because $2^3 - \frac{2^2}{4} + 5 = 8 - 1 + 5 = 12$
SUM	Consumes and stores the first passing polynomial, then adds it to the next. SUM $[x^3 - 2x]$ $[x^2 + 2x - 1] = [x^3 + x^2 - 1]$
DOOR	Consumes two polynomials, a visitor and a key, in either order. If the key is [0] then the visitor is allowed to pass through. DOOR [0] [7] = [7] DOOR $[x^5 + 3]$ [0] = $[x^5 + 3]$ DOOR $[-x^2 + 2x]$ $[x^8]$ both will be consumed.

UP, DOWN, LEFT, RIGHT push the polynomials in that direction. They can be placed over other modules.