Project Matrix

Operations Grammar

Tokens:

* +
* -
* \*
* /
* ^
* (
* )
* Matrix

Transpose, Inverse, Constant before the Parser

Handle unary operators before the Parser

Grammar:

* expression -> sign sum
* sum -> PLUSMINUS term sum
* sum -> EPSILON // Denotes end of sequence
* sign -> PLUSMINUS term // PLUSMINUS so the sign is attachable
* sign -> term
* term -> factor op
* op -> MULTIDIV signf op
* op -> EPSILON
* signf -> PLUSMINUS factor
* signf -> factor
* factor -> argument factorop
* factorop -> RAISED signf
* factorop -> EPSILON
* argument -> value
* argument -> OPENBRACKET expression CLOSEBRACKET
* value -> matrix

expression

(sign sum)

sign (PLUSMINUS term sum)

sign PLUSMINUS term (EPSILON)

(factor op) PLUSMINUS (factor op) EPSILON

(argument factorop) op PLUSMINUS (argument factorop) op EPSILON

(value) (RAISED signf) op PLUSMINUS (value) (EPSILON) op EPSILON

(matrix) RAISED (PLUSMINUS factor) op PLUSMINUS (matrix) EPSILON op EPSILON

matrix RAISED PLUSMINUS (argument factorop) op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS (OPENBRACKET expression CLOSEBRACKET) factorop op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET sign sum CLOSEBRACKET (EPSILON) op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET (term) (EPSILON) CLOSEBRACKET EPSILON op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET (factor op) EPSILON CLOSEBRACKET EPSILON op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET (argument factorop) op EPSILON CLOSEBRACKET EPSILON op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET (value) (EPSILON) op EPSILON CLOSEBRACKET EPSILON op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET (matrix) EPSILON op EPSILON CLOSEBRACKET EPSILON op PLUSMINUS matrix EPSILON op EPSILON

matrix RAISED PLUSMINUS OPENBRACKET matrix EPSILON (EPSILON) EPSILON CLOSEBRACKET EPSILON (EPSILON) PLUSMINUS matrix EPSILON (EPSILON) EPSILON

matrix ^ +(matrix \_ \_ \_) \_ \_ - matrix \_ \_ \_