

chunk ::= {stat [,']} [laststat [,']]

block ::= chunk

stat ::= varlist '=' explist |
functioncall |
do block end |
while exp do block end |
repeat block until exp |
if exp then block {elseif exp then block} [else block] end |
for Name '=' exp [, 'exp [, 'exp] do block end |
for namelist in explist do block end |
function funcname funcbody |
local function Name funcbody |
local namelist [, 'explist]

laststat ::= return [explist] | break

funcname ::= Name { '.' Name } [':' Name]

varlist ::= var { ',' var }

namelist ::= Name { ',' Name }

explist ::= { exp [, '] exp }

args ::= '(' [explist] ')' | tableconstructor | String

function ::= function funcbody

funcbody ::= '(' [parlist] ')' block end

parlist ::= namelist [, '...'] | '...'

tableconstructor ::= '{' [fieldlist] '}'

fieldlist ::= field { fieldsep field } [fieldsep]

field ::= '[' exp `]' '=' exp | Name '=' exp | exp

fieldsep ::= `,' | `;'

binop ::= '+' | '-' | '*' | '/' | '^' | '%' | '..' |
 '<' | '<=' | '>' | '>=' | '==' | '~=' |
 and | or

unop ::= '-' | not | '#'

var ::= Name var2
 '(' exp ')' prefixexp2 '[' exp ']' var2
 '(' exp ')' prefixexp2 '.' Name var2

var2 ::= prefixexp2 '[' exp ']' var2
 prefixexp2 '.' Name var2
 e

prefixexp ::= var prefixexp2
 '(' exp ')' prefixexp2

prefixexp2 ::= args prefixexp2
 ':' Name args prefixexp2
 e

functioncall ::= prefixexp args | prefixexp ':' Name args

exp ::= nil exp2 | false exp2 | true exp2 | Number exp2 | String exp2 | '...' exp2
 | function exp2 | prefixexp exp2 | tableconstructor exp2 | unop exp exp2

exp2 ::= binop exp exp2
 e