

1. Конкретный синтаксис.

```

digit_nonzero = 1 | .. | 9
digit = 0 | digit_nonzero
alpha = a | ... | z | A | ... Z

nondigit = _ | alpha

alphanum = digit | alpha

prime = digit_nonzero | digit_nonzero digit | digit_nonzero digit prime

ident := nondigit | nondigit alphanum | nondigit alphanum ident
bop = + | .- | ^ | * | / | == | /= | <= | < | > | >= | || | &&

unop = ! | -

aexpr := aexpr bop aexpr
        | uop aexpr
        | var
        | prime
        | (aexpr)

arg := ident

marg := arg
       | (arg)

args := marg args
       | arg

expr' := aexpr
        | let

expr := expr' | (expr')

bind := ident args = expr

let := 'let' bind 'in' expr | (let)

terminate := ';'

program := main = expr

```

Точка входа: функция main без аргументов.

2. Абстрактный синтаксис

Представлен в виде АСД.

```
data Ast = Bind
```

```
data Bind = Bind Name Args Expr
```

```
data Args = [Var String]
```

```
data Expr = AExpr | Let Bind Expr
```

```
data AExpr = BinOp BinOperator Expr Expr  
           | UnOP  UnOperator Expr  
           | Primary Int  
           | Var String
```