

The keywords are: `array`, `assert`, `bool`, `else`, `false`, `float`, `fn`, `if`, `image`, `int`, `let`, `print`, `read`, `return`, `show`, `sum`, `then`, `time`, `to`, `true`, `type`, `write`.

Type Syntax

```
type : int
      | bool
      | float
      | <variable>
      | <type> [ , ... ]
      | { <type> , ... }
```

Expressions

```
expr : <integer>
      | <float>
      | true
      | false
      | <variable>
      | { <expr> , ... }      // Tuple literal
      | [ <expr> , ... ]     // Array Literal
      | ( <expr> )
      | <expr> + <expr>
      | <expr> - <expr>
      | <expr> * <expr>
      | <expr> / <expr>
      | <expr> % <expr>
      | - <expr>             // unary negation
      | <expr> < <expr>
      | <expr> > <expr>
      | <expr> == <expr>
      | <expr> != <expr>
      | <expr> <= <expr>
      | <expr> >= <expr>
      | <expr> && <expr>
      | <expr> || <expr>
      | ! <expr>
      | <expr> { <integer> }   // Tuple Index
      | <expr> [ <expr> , ... ] // Array index
      | if <expr> then <expr> else <expr>
      | array [ <variable> : <expr> , ... ] <expr>
      | sum [ <variable> : <expr> , ... ] <expr>
      | expr : <variable> ( <expr> , ... )
```

Statements (Like Commands but in functions only)

```
stmt : let <lvalue> = <expr>
      | assert <expr> , <string>
      | return <expr>
```

Commands

```
cmd : read image <string> to <argument>
    | write image <expr> to <string>
    | type <variable> = <type>
    | let <lvalue> = <expr>
    | assert <expr> , <string>
    | print <string>
    | show <expr>
    | time <cmd>
    | fn <variable> ( <binding> , ... ) : <type> { ;
        <stmt> ; ... ;
    }
```

Arguments, Lvalues, and Bindings

```
argument : <variable>
    | <variable> [ <variable> , ... ]

lvalue : <argument>
    | { <lvalue> , ... }

binding : <argument> : <type>
    | { <binding> , ... }
```