

Variables begin with a lowercase letter.

Type names begin with an uppercase letter.

-- comment out the rest of the line.

```
{- multiline comment -}
```

(nesting is allowed)

True and False are of type Bool.

The type is strict, only admitting those two literals.

&&, ||, not

'==' and '/='

... strict, since there's no coercion. They have integer and floating point versions.

truncate

```
ord :: Char -> Int  
chr :: Int -> Char
```

A list of `Chars`, that is, `[Char]`.



show whatever

Surrounding an identifier with back ticks makes it infix.

Surrounding an operator with parens makes it prefix.

```
ghci> ['a', 'b', 'c'] !! 0  
'a'
```

elem, notElem

nub

concat

fst, snd

$[a..b]$  is a list of all the values from  $a$  to  $b$ , inclusive.

$[a..]$  is an infinite list from  $a$  up.

[expr | generatorOrGuard1, ... ,generatorOrGuardN]

Guards are just expressions that result in `Bool`. No `if` is used.

\params -> result



expression where declarations

let declarations in expressions

The expression can have multiple new variables in it.

```
case expr1 of  
  expr2 -> ...  
  expr3 -> ...
```

```
func params =  
  | boolean1 -> ...  
  | boolean2 -> ...
```

A data structure whose parts don't exist until they are accessed.

`iterate` takes a function  $f$  and a starting value  $n$  and produces a lazy infinite series:

$(n, f(n), f(f(n)), f(f(f(n))), \dots)$

It comes before a vararg, which is available as a list in the body.

`(do exprs*)`

Evaluates the expressions in order and returns the value of the last.

`(for seq-exprs body-expr)`

Takes a vector of one or more binding-form/collection-expr pairs, each followed by zero or more modifiers, and yields a lazy sequence of evaluations of expr.

Supported modifiers are: `:let [binding-form expr ...]`, `:while test`, `:when test`.

Use `partial`, followed by a function and fewer than the normal number of arguments.

```
user=> (def equals5 (partial = 5))  
#'user/equals5  
user=> (equals5 5)  
true
```



fst **and** snd