Strings & Basic Datatypes

Strings

You got this

Basic Datatypes

World of *types* ←——————→ World of *values*

data StopLight = Red | Amber | Green

Starts a *data type* definition

The constructor of the *type* being defined

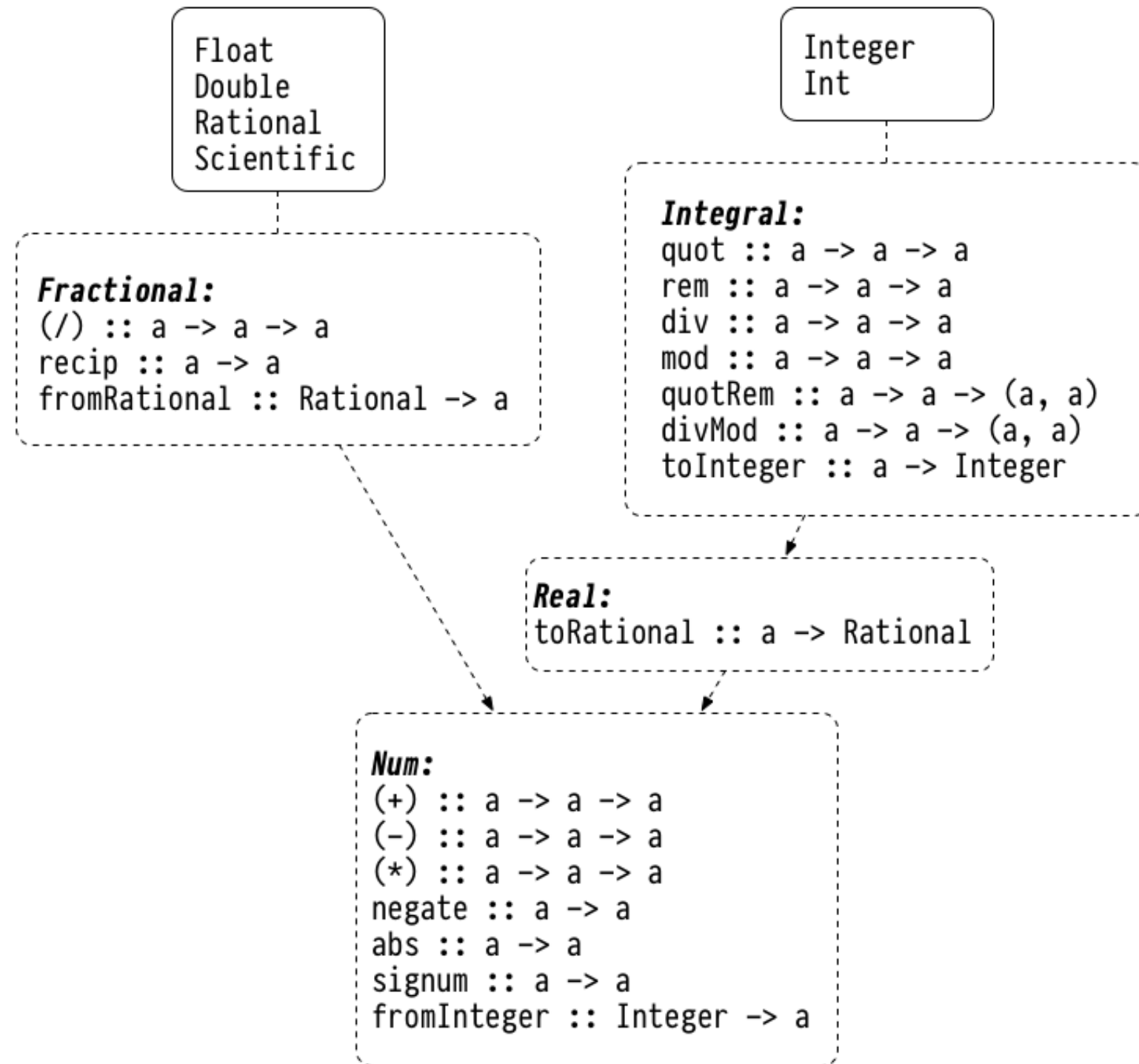Constructor functions for the *values* having type *StopLight*. (Also sometimes *data constructors*)

```haskell
data Taco = Taco

{-
 Name punning is perfectly fine (and common).
 It isn't ambiguous to Haskell.
-}
```

Number Typeclasses

```
Float
Double
Rational
Scientific
```

```
Integer
Int
```

Fractional:
```
(/) :: a -> a -> a
recip :: a -> a
fromRational :: Rational -> a
```

Integral:
```
quot :: a -> a -> a
rem :: a -> a -> a
div :: a -> a -> a
mod :: a -> a -> a
quotRem :: a -> a -> (a, a)
divMod :: a -> a -> (a, a)
toInteger :: a -> Integer
```

Real:
```
toRational :: a -> Rational
```

Num:
```
(+) :: a -> a -> a
(-) :: a -> a -> a
(*) :: a -> a -> a
negate :: a -> a
abs :: a -> a
signum :: a -> a
fromInteger :: Integer -> a
```

Chapter 5

- Exercises are here: https://gist.github.com/twopoint718/a7920abfd5f654c4baccac2c6bcda740

- You can use these as a template. Let me know if you find any errors.