A set + an associative binary operation is a **semigroup**

```
class Semigroup a where
  append :: a → a → a
```

A semigroup + an identity element is **monoid**

```
class Semigroup a where
  append :: a → a → a

class Semigroup m ≤ Monoid m where
  mempty :: m
```

Semigroup

Identity

Monoid