

WORK LOG OF JUNE 13 2025

DANIEL R. BARRERO R.

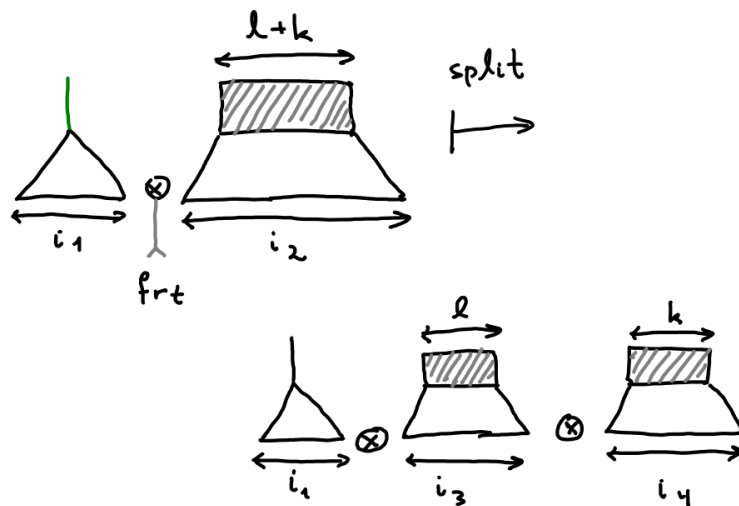
1. GENERAL

- In `splitForest`, the typed value `(lrdr,krdr)` is matched against the typed value `plusAssoc j1 j2' j2''`.

2.1. The type signature of the `splitForest` function is

And the evaluation of its recursive case is given by

this can be visualized in the following picture:



2.2. The signature of the `Operad` typeclass is

```
class (Graded f) Operad where
  ident :: f One
  compose :: f n -> Forest f m n -> fm
```

And our instance of interest is the type `MoveTree`, which is parametrized by the `Nat` kind. Its signature is coupled with that of `Trees`, also parametrized by `Nat`. These signatures are

```
data MoveTree n where
  Leaf :: MoveTree One
  Fan  :: Trees n -> MoveTree n

data Trees n where
  NilT :: Trees Z
  (:+) :: (Move, MoveTree a) -> Trees b -> Trees (a+b)
```