

 SAMFYB update notes	c0b7534 20 days ago
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45 lines (30 sloc) 798 Bytes

Recitation March 28 (Midterm 2 Review)

Agenda

- Announcements
- Composition
- Associativity/Partial Application
- CPS

Composition

```
op o : ('a -> 'b) * ('c -> 'a) -> ('c -> 'b)
(Int.toString) o (fn x => x + 1) : int -> string

(op o) o (op o) (* NOT type-check *)
```

Associativity

`o` is right associative because of `infixr` definition.

$$f \circ g \circ h = f \circ (g \circ h)$$

In general, functions are left associative.

```
fun curry x y z = fn x => (fn y => (fn z => x + y + z))
```

Note: Types are right associative.

Partial Application

```
foldr : ('a * 'b -> 'b) -> 'b -> 'a list -> 'b
op ^ : string * string -> string
foldr (op ^) : string -> string list -> string
```

```
foldr (op ^) "Shashank" : string list -> string  
foldr (op ^) "Shashank" [] : string
```