This is for the loyal Schemers.

```
signature Ysig
 =
 sig
  val Y :
    ((α → α) → (α → α)) → (α → α)
 end
```

```
functor Yfunc()
 ▷
 Ysig
 =
 struct
  datatype α T = Into of α T → α
  fun Y(f)
      = H(f)(Into(H(f)))
  and H(f)(a)
      = f(G(a))
  and G(Into(a))(x)
      = a(Into(a))(x)
 end
```

```
structure Ystruct
 = Yfunc()
```

No, we wouldn't forget factorial.

```
fun mk_fact(fact)(n)
    = if (n = 0)
        then 1
        else n * fact(n − 1)
```

What is the value of

$Ystruct.Y\,(mk\_fact)(10)$?