

Handout title

Patrick D. Elliott

September 25, 2018

1 Introduction

- Some sentences. Some sentences. Some sentences. Some sentences. Some sentences. Some sentences.
- Some sentences.
- Some sentences.¹

¹ Here is a sidenote.

(1) This is an example

2 Math test

$$(2) \quad \llbracket \text{and}_{\tau \rightarrow \tau \rightarrow \tau} \rrbracket = \begin{cases} \wedge & \tau = \mathbf{t} \\ \lambda P_{\rho \rightarrow \sigma} . \lambda Q_{\rho \rightarrow \sigma} . \lambda x_{\rho} . \llbracket \text{and}_{\sigma \rightarrow \sigma \rightarrow \sigma} \rrbracket (P x) (Q x) & \tau = \rho \rightarrow \sigma \end{cases}$$

3 Code test

```
1 newtype CCP a = CCP { (>>-) :: (G Identity a -> G Identity T) -> G Identity T }
2
3 instance Functor CCP where
4   fmap f cx = CCP $ \k -> cx >>- \x -> k (fmap f x)
5
6 instance Applicative CCP where
7   pure a = CCP $ \k -> k (pure a)
8   cf <*> cx = CCP $ \k -> cf >>- \f -> cx >>- \x -> k (f <*> x)
9
10 instance Monad CCP where
11   return = pure
12   cgx >>= f = CCP $ \k -> cgx >>- \gx -> gx >>= (\x -> f x >>- k)
```