CS 565, Jens Palsberg Oct 28, 1998

Homework 5: Scheme Type Inference

A grammar for BabyScheme in JavaCC notation is on the CS 565 webpage in the code directory. Consider a type system where types are generated from the grammar:

$$t ::= t \to t \mid \mathsf{int} \mid \mathsf{boolean} \mid \alpha$$

where α ranges over a set of type variables.

Use JTB and JavaCC and write in Java one or more visitors which from a BabyScheme program produces the principal type, or decides that no type exists.

If you decide not to handle all of BabyScheme, then state explicitly what parts you cover.

Your main file should be called `Infer.java`, and if `P.scm` contains a BabyScheme program, then

```
java Infer < P.scm
```

should print either the principal type, or

```
Program does not type check
```