## CS 496: Quiz 7 – Spring 2021 Date: 23 April, 2021

## Late submissions are **not** accepted

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## Exercise 1

The following expression e is typable. Exhibit a typing environment  $\Gamma$ , a type t and a typing derivation for the judgement  $\Gamma \vdash e$ ::t.

```
let f=proc (x:int) { proc(y:int) { x-y } }
in (f (3-6))
```

## Exercise 2

Give typable expressions of each of the following types, justifying your result by showing a type derivation for each of them.

- 1. bool->int
- $2. \text{ (bool -> int)} \rightarrow \text{int}$
- $3. \text{ bool} \rightarrow \text{(bool} \rightarrow \text{bool)}$

**Submission Instructions:** A pdf, png or jpeg via canvas. You may submit photos of multiple pages as separate files. One submission per group. Name of the other member of the team (i.e. the one not submitting) as a canvas comment.