Homework 3: Typing and Evaluation
Programming Languages Concepts (CSCI 3030)

Submit a single PDF file of your solution set on D2L.
All questions must be in order.
All assignments not adhering to this will not be graded.

0. Derive $\emptyset \vdash (\mathsf{fun}\, x.\mathsf{if}(x, \mathsf{F}, \mathsf{T}))(\mathsf{T}) : \mathbb{B}$

1. Derive $\emptyset \vdash (\mathsf{fun}\, x.\mathsf{if}(x, \mathsf{F}, \mathsf{T}))(\mathsf{T}) \Downarrow \mathsf{F}$

2. Define disjunction using a let-expression that names your definition or whose body is $\mathsf{or}(\mathsf{T})(\mathsf{F})$. Then derive it's type.