CSE 130 (Wi 25) Handout

Jan 14, 2025

Question 1

How shall we implement `ADD`?

- **A.** `let ADD = \n m -> n INC m`
- **B.** `let ADD = \n m -> INC n m`
- **C.** `let ADD = \n m -> n m INC`
- **D.** `let ADD = \n m -> n (m INC)`
- **E.** `let ADD = \n m -> n (INC m)`

Question 2

How shall we implement `MULT`?

- **A.** `let MULT = \n m -> n ADD m`
- **B.** `let MULT = \n m -> n (ADD m) ZERO`
- **C.** `let MULT = \n m -> m (ADD n) ZERO`
- **D.** `let MULT = \n m -> n (ADD m ZERO)`
- **E.** `let MULT = \n m -> (n ADD m) ZERO`

Question 3

You *can* write `SUM` using numerals but its *tedious*. Is the below a correct implementation of `SUM`?

```
let SUM = \n -> ITE (ISZ n)
             ZERO
             (ADD n (SUM (DEC n)))
```

- **A.** Yes
- **B.** No