

Computability Theory	WS 2023	LVA 703317
Week 9		December 4, 2023

## **Exercises**

- $\langle 2 \rangle$  1. Which of the following statements hold?
  - (a)  $\exists xyz \xrightarrow{\mathsf{lo}}^* x(yz)$
  - (b)  $Yx \xrightarrow{lo}^* x(Yx)$
- $\langle 2 \rangle$  2. Prove that the Y combinator has no normal form.
- (3) 3. Which of the following statements hold?
  - (a)  $SB(KI) \leftrightarrow^* KI$
  - (b)  $\mathsf{SKK}x \leftrightarrow^* \mathsf{I}x$
  - (c)  $SII(SII) \leftrightarrow^* Y$