

# Beta-reduction

July 17, 2020

$$\begin{aligned} & ((\lambda a. (\lambda b. b \ b) (\lambda b. b \ b)) \ b) ((\lambda c. (c \ b)) (\lambda a. a)) =_{\beta} \\ & ((\lambda b. b \ b) (\lambda b. b \ b)) ((\lambda c. (c \ b)) (\lambda a. a)) =_{\beta} ((\lambda b. b \ b) (\lambda b. b \ b)) (((\lambda a. a) \ b)) =_{\beta} \\ & ((\lambda b. b \ b) (\lambda b. b \ b)) ((b)) =_{\beta} (\lambda b. b \ b) (\lambda b. b \ b) (b) \end{aligned}$$