

$$\begin{aligned}
SKK &= (\lambda xyz. xz(yz))(\lambda xy. x)(\lambda xy. x) \\
&= (\lambda xyz. xz(yz))(\lambda w. (\lambda xy. x)) \\
&= \lambda hz. (\lambda w. (\lambda xy. x))z(hz) \\
&= \lambda hz. (\lambda xy. x)(hz) \\
&= \lambda z. (\lambda xy. x)z \\
&= \lambda z. z \\
&= I
\end{aligned}$$