$S\ K\ K \equiv (\lambda x\ y\ z.x\ z\ (y\ z))\ (\lambda x\ y.x)\ (\lambda x\ y.x) \rightarrow_\beta$
$\rightarrow_\beta (\lambda y\ z.[\lambda x\ y.x]\ z\ (y\ z))\ (\lambda x\ y.x) \rightarrow_\beta$
$\rightarrow_\beta (\lambda y\ z.[\lambda y.z]\ (y\ z))\ (\lambda x\ y.x) \rightarrow_\beta (\lambda y\ z.z)\ (\lambda x\ y.x) \rightarrow_\beta$
$\rightarrow_\beta (\lambda z.z) \equiv I$