

$$((\lambda a. (\lambda b. bb)(\lambda b. bb))b)((\lambda c. (cb))(\lambda a. a))$$

$$(\lambda b. bb)(\lambda b. bb)((\lambda c. (cb))(\lambda a. a))$$

But the expression $(\lambda b. bb)(\lambda b. bb)$ is known as a w-expression and has no normal form the reduction will continue indefinitely.