

$k = 2; Z = kR_{1,5} kR_{6,2} kR_{3,7} \overline{kC_4} \overline{kKink_8} \overline{kKink_9} \overline{kKink_{10}};$

Do [$Z = Z \sim B_{1,r} \sim km_{1,r \rightarrow 1}, \{r, 2, 10\}$];

Simplify /@ Z /. $v_{-1} \Rightarrow v$