

```

Z[K_] := Z[RVK@K];
Z[rvk_RVK] := (*Z[rvk] =*)
Module[{todo, n, rots, g, done, st, cx, g1, i, j, k, k1, k2, k3},
  {todo, rots} = List@@rvk;
  AppendTo[rots, 0];
  n = Length[todo];
  g = E[{}->{}][0, 0, 1];
  done = {0};
  st = Range[0, 2 n + 1];
  While[{} != ($M = todo),
    {cx} = MaximalBy[todo, Length[done ∩ {#[[1]], #[[2]], #[[1]] - 1, #[[2]] - 1}] &,
      1];
    {i, j} = List@@cx;
    g1 = Switch[Head[cx],
      Xp, (kRi,j kKinkk) // kmj,k→j,
      Xm, (kRi,j kKinkk) // kmj,k→j
    ];
    g1 = (rot[k, rots[[i]] g1) // kmk,i→i; rots[[i]] = 0;
    g1 = (g1 rot[k, rots[[i + 1]]) // kmi,k→i; rots[[i + 1]] = 0;
    g1 = (rot[k, rots[[j]] g1) // kmk,j→j; rots[[j]] = 0;
    g1 = (g1 rot[k, rots[[j + 1]]) // kmj,k→j; rots[[j + 1]] = 0;
    g *= g1;
    If[MemberQ[done, i], g = g // kmi,i+1→i; st = st /. st[[i + 2]] → st[[i + 1]]];
    If[MemberQ[done, i - 1], g = g // kmst[[i],i→st[[i]]; st = st /. st[[i + 1]] → st[[i]]];
    If[MemberQ[done, j], g = g // kmj,j+1→j; st = st /. st[[j + 2]] → st[[j + 1]]];
    If[MemberQ[done, j - 1], g = g // kmst[[j],j→st[[j]]; st = st /. st[[j + 1]] → st[[j]]];
    done = done ∪ {i - 1, i, j - 1, j};
    todo = DeleteCases[todo, cx]
  ];
  CF /@ (g /. {x0 → x, y0 → y, a0 → a})
]

```