ReidemeisterThree@*k* gives all the knots that can be obtained by applying one third Reidemeister move to the knot *k*, which is given in modified DT form.

```
ReidemeisterThree@k_MDT :=
  ReidemeisterThree@k = Block[{b, f, n = Length@k,
    p = List @@ Build@k //
      (#ᵀ ⋃ (Abs@Reverse@# Sign@#)ᵀ)ᵀ⟦2⟧ &, v,
    y = {}},
   b = Abs@p // #⟦Mod[#⟦1⟧ + {1, -1}, 2 n, 1]⟧ &;
   Do[f = Mod[Abs@p⟦i⟧ + {1, -1}, 2 n, 1]
      // If[OddQ@i, Abs@p⟦#⟧, #] &;
    Do[If[{c, i - 1, i}
       // Total[Sign@p⟦#⟧]² == 1 &&
         MemberQ[(Abs@p⟦#⟧ ⋃ #)⟦2 ;; 3⟧, i] &,
      v = p⟦{Abs@p⟦c⟧, Abs@p⟦i - Mod[i, 2]⟧,
          i - Mod[i + 1, 2]}⟧ / 2;
      If[DuplicateFreeQ@v,
       AppendTo[y, k /.
         (v⟦#1⟧ → -Abs@v⟦#2⟧ Sign@v⟦#3⟧ & @@@
           {{1, 2, 3}, {2, 3, 1}, {3, 1, 2}})]]],
     {c, b ⋂ f}];
    b = f, {i, 2, 2 n}];
   KnotSort[Minimal /@ y ⋃ {}]];
```