fixable proofs

July 9, 2015

Lemma 0.1. *The graph in Figure 1 is reducible.*

Proof. We need to handle all boards up to permutation of colors, so it will suffice to handle all boards of the form 23|23|123|23|123|23, 13|23|123|23|123|23, 23|13|123|23|123|23, 13|13|123|23|123|23, 12|13|123|23|123|23, 23|23|123|13|123|23, 13|23|123|13|123|23, 12|23|123|13|123|23, 23|13|123|13|123|23, 23|12|123|13|123|23, 13|13|123|13|123|23, 12|13|123|13|123|23, 13|12|123|13|123|23, 12|12|123|13|123|23, 01|01|123|13|123|23, 23|23|023|23|123|23, 23|23|013|23|123|23, 13|13|023|13|123|23, 13|13|013|13|123|23, 12|12|013|13|123|23, 13|13|012|13|123|23, 12|12|012|13|123|23, 03|23|023|23|123|23, 03|23|013|23|123|23, 02|23|013|23|123|23, 03|13|023|13|123|23, 01|13|023|13|123|23, 01|23|013|13|123|23, 01|23|012|13|123|23, 03|13|013|13|123|23, 02|12|013|13|123|23, 03|13|012|13|123|23, 02|12|012|13|123|23, 01|13|013|13|123|23, 01|12|013|13|123|23, 01|13|012|13|123|23, 01|12|012|13|123|23, 23|03|023|23|123|23, 23|03|013|23|123|23, 23|02|013|23|123|23, 13|03|023|13|123|23, 13|01|023|13|123|23, 13|03|013|13|123|23, 12|02|013|13|123|23, 13|03|012|13|123|23, 12|02|012|13|123|23, 23|01|013|13|123|23, 23|01|012|13|123|23, 13|01|013|13|123|23, 12|01|013|13|123|23, 13|01|012|13|123|23, 12|01|012|13|123|23, 03|03|023|23|123|23, 02|03|023|23|123|23, 01|01|023|23|123|23, 03|03|013|23|123|23, 02|03|013|23|123|23, 03|02|013|23|123|23, 02|02|013|23|123|23, 01|01|013|23|123|23, 03|03|023|13|123|23, 02|02|023|13|123|23, 01|03|023|13|123|23, 03|01|023|13|123|23, 01|01|023|13|123|23, 03|03|013|13|123|23, 02|02|013|13|123|23, 03|03|012|13|123|23, 02|02|012|13|123|23, 01|03|013|13|123|23, 01|02|013|13|123|23, 01|03|012|13|123|23, 01|02|012|13|123|23, 03|01|013|13|123|23, 02|01|013|13|123|23, 03|01|012|13|123|23, 02|01|012|13|123|23, 01|01|013|13|123|23, 01|01|012|13|123|23, 13|13|123|01|123|23, 01|23|123|01|123|23, 03|13|123|01|123|23, 01|13|123|01|123|23,
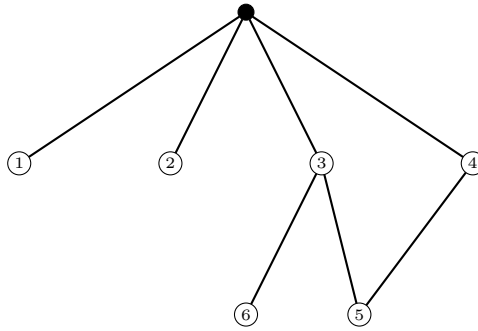

Figure 1: Vertices are ordered as labeled.

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23|23|023|13|123|23, 12|12|013|23|123|23, 13|12|013|23|123|23, 12|13|013|23|123|23, 13|13|013|23|123|23,
23|12|013|23|123|23, 23|13|013|23|123|23, 12|23|013|23|123|23, 13|23|013|23|123|23, 12|13|023|23|123|23,
13|13|023|23|123|23, 23|13|023|23|123|23, 13|23|023|23|123|23, 02|01|123|13|123|23, 03|01|123|13|123|23,
01|02|123|13|123|23, 01|03|123|13|123|23, 02|02|123|13|123|23, 03|02|123|13|123|23, 02|03|123|13|123|23,
03|03|123|13|123|23, 01|01|123|23|123|23, 03|01|123|23|123|23, 01|03|123|23|123|23, 02|03|123|23|123|23,
03|03|123|23|123|23, 12|01|123|13|123|23, 13|01|123|13|123|23, 23|01|123|13|123|23, 12|02|123|13|123|23,
13|02|123|13|123|23, 12|03|123|13|123|23, 13|03|123|13|123|23, 23|02|123|13|123|23, 23|03|123|13|123|23,
13|01|123|23|123|23, 23|01|123|23|123|23, 12|03|123|23|123|23, 13|03|123|23|123|23, 23|03|123|23|123|23,
01|12|123|13|123|23, 01|13|123|13|123|23, 02|12|123|13|123|23, 03|12|123|13|123|23, 02|13|123|13|123|23,

03|13|123|13|123|23, 01|23|123|13|123|23, 02|23|123|13|123|23, 03|23|123|13|123|23, 01|13|123|23|123|23, 02|13|123|23|123|23, 03|13|123|23|123|23, 01|23|123|23|123|23 *or* 03|23|123|23|123|23.

In all these cases, H is immediately colorable from the lists.

Case 2. *B is one of* 23|23|123|23|123|23, 13|23|123|23|123|23, 23|13|123|23|123|23, 23|23|123|13|123|23, 13|13|123|23|123|23, 12|13|123|23|123|23, 12|23|123|13|123|23, 23|12|123|13|123|23, 13|13|123|13|123|23, 12|13|123|13|123|23, 13|12|123|13|123|23, 12|12|123|13|123|23, 01|01|123|13|123|23, 23|23|023|23|123|23, 23|23|013|23|123|23, 13|13|023|13|123|23, 13|13|013|13|123|23, 12|12|013|13|123|23, 13|13|012|13|123|23, 12|12|012|13|123|23, 03|23|023|23|123|23, 23|03|023|23|123|23, 02|23|013|23|123|23, 23|02|013|23|123|23, 03|13|023|13|123|23, 13|03|023|13|123|23, 01|13|023|13|123|23, 13|01|023|13|123|23, 13|13|023|01|123|23, 01|23|013|13|123|23, 23|01|013|13|123|23, 23|13|013|01|123|23, 13|23|013|01|123|23, 01|23|012|13|123|23, 23|01|012|13|123|23, 02|12|013|13|123|23, 12|02|013|13|123|23, 02|12|012|13|123|23, 12|02|012|13|123|23, 01|13|013|13|123|23, 13|01|013|13|123|23, 01|12|013|13|123|23, 01|12|012|13|123|23, 12|01|013|13|123|23, 12|01|012|13|123|23, 01|13|012|13|123|23, 13|01|012|13|123|23, 03|03|023|23|123|23, 03|23|023|03|123|23, 23|03|023|03|123|23, 02|03|023|23|123|23, 02|23|023|03|123|23, 23|02|023|03|123|23, 01|01|023|23|123|23, 03|03|013|23|123|23, 02|03|013|23|123|23, 03|02|013|23|123|23, 02|02|013|23|123|23, 01|01|013|23|123|23, 03|03|023|13|123|23, 03|13|023|03|123|23, 13|03|023|03|123|23, 02|02|023|13|123|23, 01|03|023|13|123|23, 01|13|023|03|123|23, 03|01|023|13|123|23, 13|01|023|03|123|23, 03|13|023|01|123|23, 13|03|023|01|123|23, 01|01|023|13|123|23, 01|13|023|01|123|23, 13|01|023|01|123|23, 03|03|013|13|123|23, 02|02|013|13|123|23, 03|03|012|13|123|23, 03|13|012|03|123|23, 13|03|012|03|123|23, 02|02|012|13|123|23, 03|12|013|03|123|23, 12|03|013|03|123|23, 01|03|013|13|123|23, 03|01|013|13|123|23, 01|02|013|13|123|23, 01|12|012|03|123|23, 02|01|013|13|123|23, 12|01|012|03|123|23, 02|13|013|01|123|23, 01|12|023|03|123|23, 13|02|013|01|123|23, 12|01|023|03|123|23, 01|03|012|13|123|23, 01|13|012|03|123|23, 03|01|012|13|123|23, 13|01|012|03|123|23, 02|12|013|01|123|23, 12|02|013|01|123|23, 01|02|012|13|123|23, 02|01|012|13|123|23, 13|13|123|01|123|23, 01|23|123|01|123|23, 23|01|013|01|013|23, 23|01|123|01|123|23, 01|23|013|01|013|23, 01|01|013|23|013|23, 03|13|123|01|123|23, 13|03|123|01|123|23, 01|13|123|01|123|23, 13|01|123|01|123|23, 03|03|123|03|123|23, 02|02|123|03|123|23, 01|01|123|03|123|23, 03|03|123|01|123|23, 01|03|123|01|123|23, 03|01|123|01|123|23, 12|13|023|03|123|23, 13|12|023|03|123|23, 12|12|023|03|123|23, 13|23|013|03|123|23, 23|13|013|03|123|23, 12|23|013|03|123|23, 23|12|013|03|123|23, 13|23|012|03|123|23, 23|13|012|03|123|23, 12|23|012|03|123|23, 23|12|012|03|123|23, 12|13|013|03|123|23, 13|12|013|03|123|23, 13|23|023|01|123|23, 23|13|023|01|123|23, 12|13|023|01|123|23, 23|23|013|01|123|23, 12|23|013|01|123|23, 23|12|013|01|123|23, 12|13|013|01|123|23, 13|12|013|01|123|23, 01|23|023|03|123|23, 23|01|023|03|123|23, 02|13|023|03|123|23, 13|02|023|03|123|23, 03|12|023|03|123|23, 12|03|023|03|123|23, 02|12|023|03|123|23, 12|02|023|03|123|23, 03|23|013|03|123|23, 23|03|013|03|123|23, 02|23|013|03|123|23, 23|02|013|03|123|23, 01|23|013|03|123|23, 23|01|013|03|123|23, 23|03|013|01|123|23, 03|23|013|01|123|23, 01|23|012|03|123|23, 23|01|012|03|123|23, 03|13|013|03|123|23, 13|03|013|03|123|23, 02|13|013|03|123|23, 13|02|013|03|123|23, 12|02|012|03|123|23, 02|12|012|03|123|23, 02|13|012|03|123|23, 13|02|012|03|123|23, 03|12|012|03|123|23, 12|03|012|03|123|23, 01|13|013|03|123|23, 13|01|013|03|123|23, 01|23|023|01|123|23, 23|01|023|01|123|23, 02|13|023|01|123|23, 12|03|023|01|123|23, 02|23|013|01|123|23, 23|02|013|01|123|23, 01|23|013|01|123|23, 23|01|013|01|123|23, 03|13|013|01|123|23, 13|03|013|01|123|23, 03|12|013|01|123|23, 12|03|013|01|123|23, 01|13|013|01|123|23, 13|01|013|01|123|23, 01|12|013|01|123|23, 12|01|013|01|123|23, 02|03|023|03|123|23, 12|13|123|23|013|23, 03|02|023|03|123|23, 13|12|123|23|013|23, 02|02|023|03|123|23, 23|12|123|13|013|23, 23|13|123|12|013|23, 12|23|123|13|013|23,

13|23|123|12|013|23, 01|03|023|03|123|23, 03|01|023|03|123|23, 01|02|023|03|123|23, 02|01|023|03|123|23,
01|01|023|03|123|23, 01|03|023|01|123|23, 03|01|023|01|123|23, 02|03|013|03|123|23, 03|02|013|03|123|23,
01|03|013|03|123|23, 03|01|013|03|123|23, 01|03|012|03|123|23, 03|01|012|03|123|23, 01|02|012|03|123|23,
02|01|012|03|123|23, 03|02|013|01|123|23, 02|03|013|01|123|23, 03|03|013|01|123|23, 02|02|013|01|123|23,
01|03|013|01|123|23, 12|03|123|12|013|23, 03|01|013|01|123|23, 03|12|123|12|013|23, 01|02|013|01|123|23,
02|01|013|01|123|23, 13|23|123|23|013|23, 23|13|123|23|013|23, 23|23|123|13|013|23, 12|23|123|23|013|23,
23|12|123|23|013|23, 13|13|123|23|013|23, 13|23|123|13|013|23, 23|13|123|13|013|23, 12|12|123|23|013|23,
23|23|123|12|013|23, 12|23|123|12|013|23, 23|12|123|12|013|23, 13|13|123|13|013|23, 12|13|123|13|013|23,
13|12|123|13|013|23, 13|13|123|12|013|23, 12|12|123|13|013|23, 12|13|123|12|013|23, 13|12|123|12|013|23,
01|23|123|23|013|23, 23|01|123|23|013|23, 02|12|123|12|013|23, 12|02|123|12|013|23, 01|12|123|12|013|23,
12|01|123|12|013|23, 03|03|123|23|013|23, 02|02|123|23|013|23, 02|02|123|12|013|23, 01|02|123|12|013|23,
02|01|123|12|013|23, 01|01|123|13|013|23, 01|01|123|12|013|23, 23|23|013|23|013|23, 23|23|012|23|013|23,
12|12|013|23|013|23, 12|12|012|23|013|23, 23|23|023|13|013|23, 23|23|023|12|013|23, 13|13|023|13|013|23,
12|12|023|12|013|23, 23|23|013|12|013|23, 23|23|012|12|013|23, 13|13|013|13|013|23, 12|12|013|13|013|23,
13|13|012|13|013|23, 12|12|012|13|013|23, 13|13|013|12|013|23, 13|13|012|12|013|23, 02|12|013|23|013|23,
02|12|012|23|013|23, 02|23|023|12|013|23, 23|02|023|12|013|23, 03|13|013|13|013|23, 13|03|013|13|013|23,
03|03|013|13|013|23, 03|12|013|12|013|23, 12|03|013|12|013|23, 02|12|013|12|013|23, 12|02|013|12|013|23,
02|02|013|12|013|23, 02|12|012|12|013|23, 12|02|012|12|013|23, 02|02|012|12|013|23, 01|13|013|13|013|23,
13|01|013|13|013|23, 01|13|012|13|013|23, 13|01|012|13|013|23, 13|13|012|01|013|23, 01|12|013|12|013|23,
12|01|013|12|013|23, 12|12|013|01|013|23, 01|12|012|12|013|23, 12|01|012|12|013|23, 12|12|012|01|013|23,
01|01|012|23|013|23, 01|23|012|01|013|23, 23|01|012|01|013|23, 03|03|023|12|013|23, 01|12|012|01|013|23,
12|01|012|01|013|23, 02|02|023|12|013|23, 03|03|012|13|013|23, 01|03|013|13|013|23, 03|01|013|13|013|23,
01|01|013|13|013|23, 01|13|013|01|013|23, 13|01|013|01|013|23, 01|01|012|13|013|23, 01|01|013|12|013|23,
01|12|013|01|013|23, 12|01|013|01|013|23, 01|01|012|12|013|23, 13|13|123|01|013|23, 12|12|123|01|013|23,
01|01|123|01|013|23, 13|13|013|01|013|23, 02|12|013|01|013|23 *or* 02|12|012|01|013|23.

$\mathcal{K}_{02,2}(23|23|123|23|123|23, 1, 4, 6) \Rightarrow 03|03|123|23|123|23, 23|03|123|03|123|23, 13|23|013|13|013|23$
(Case 1).

$\mathcal{K}_{02,4}(23|23|123|23|123|23, 1, 6) \Rightarrow 03|23|123|03|123|23, 13|13|013|23|013|23$ (Case 1).

$\mathcal{K}_{02,1}(23|23|123|23|123|23, 6) \Rightarrow 23|13|013|13|013|23$ (Case 1).

$\mathcal{K}_{02,2}(13|23|123|23|123|23, \infty, 5, 6) \Rightarrow 13|03|123|23|123|23, 13|03|123|23|013|23, 03|23|013|13|013|23$
(Case 1).

$\mathcal{K}_{02,3}(13|23|123|23|123|23, \infty, 5, 6) \Rightarrow 13|23|013|23|123|23, 13|23|013|23|013|23, 03|13|023|13|013|23$
(Case 1).

$\mathcal{K}_{02,4}(13|23|123|23|123|23, \infty, 5, 6) \Rightarrow 13|23|123|03|123|23, 03|23|023|13|013|23, 03|13|013|23|013|23$
(Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|13|123|23|123|23$ and $(3124) \Rightarrow 23|23|123|13|123|23$

$\mathcal{K}_{01,2}(13|13|123|23|123|23, 3, 5) \Rightarrow 13|03|023|23|123|23, 03|13|023|23|123|23$ (Case 1).

$\mathcal{K}_{01,3}(13|13|123|23|123|23, 5) \Rightarrow 03|03|123|23|123|23$ (Case 1).

$\mathcal{K}_{01,2}(12|13|123|23|123|23, 3, 5) \Rightarrow 12|03|023|23|123|23, 02|13|023|23|123|23$ (Case 1).

$\mathcal{K}_{01,3}(12|13|123|23|123|23, 5) \Rightarrow 02|03|123|23|123|23$ (Case 1).

$\mathcal{K}_{02,2}(12|23|123|13|123|23, \infty, 3, 5, 6) \Rightarrow 12|03|123|13|123|23, 12|03|013|13|123|23, 12|03|123|13|013|23,$
$01|23|013|13|013|23$ (Case 1).

$\mathcal{K}_{02,3}(12|23|123|13|123|23, \infty, 5, 6) \Rightarrow 12|23|013|13|123|23, 12|23|013|13|013|23, 01|03|123|13|013|23$
(Case 1).

$\mathcal{K}_{02,1}(12|23|123|13|123|23, \infty) \Rightarrow 01|23|123|13|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|12|123|13|123|23$

$\mathcal{K}_{01,1}(13|13|123|13|123|23, \infty, 2, 4) \Rightarrow 03|13|123|13|123|23, 03|03|123|13|123|23, 03|13|123|03|123|23$
(Case 1).

$\mathcal{K}_{01,2}(13|13|123|13|123|23, \infty, 4) \Rightarrow 13|03|123|13|123|23, 13|03|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,4}(13|13|123|13|123|23, \infty) \Rightarrow 13|13|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,2}(12|13|123|13|123|23, \infty, 1, 3, 4) \Rightarrow 12|03|123|13|123|23, 02|03|123|13|123|23, 12|03|023|13|123|23,$
$12|03|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,1}(12|13|123|13|123|23, \infty) \Rightarrow 02|13|123|13|123|23$ (Case 1).

$\mathcal{K}_{01,3}(12|13|123|13|123|23, \infty) \Rightarrow 12|13|023|13|123|23$ (Case 1).

$\mathcal{K}_{01,4}(12|13|123|13|123|23, \infty) \Rightarrow 12|13|123|03|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 13|12|123|13|123|23$ and $(3124) \Rightarrow 12|12|123|13|123|23$

$\mathcal{K}_{12,2}(23|23|023|23|123|23, \infty, 3, 4, 6) \Rightarrow 23|13|023|23|123|23, 23|13|013|23|123|23, 23|13|023|13|123|23,$
$13|23|013|13|123|23$ (Case 1).

$\mathcal{K}_{12,4}(23|23|023|23|123|23, \infty, 3, 6) \Rightarrow 23|23|023|13|123|23, 23|23|013|13|123|23, 13|13|013|23|123|23$
(Case 1).

$\mathcal{K}_{12,1}(23|23|023|23|123|23, \infty) \Rightarrow 13|23|023|23|123|23$ (Case 1).

$\mathcal{K}_{13,2}(23|23|013|23|123|23, 4, 6) \Rightarrow 23|13|012|13|123|23, 13|23|012|13|123|23$ (Case 1).

$\mathcal{K}_{13,4}(23|23|013|23|123|23, 6) \Rightarrow 12|12|013|23|123|23$ (Case 1).

$\mathcal{K}_{12,2}(13|13|013|13|123|23, \infty, 3, 4, 6) \Rightarrow 13|23|013|13|123|23, 13|23|023|13|123|23, 13|23|013|23|123|23,$
$23|13|023|23|123|23$ (Case 1).

$\mathcal{K}_{12,4}(13|13|013|13|123|23, \infty, 3, 6) \Rightarrow 13|13|013|23|123|23, 13|13|023|23|123|23, 23|23|023|13|123|23$
(Case 1).

$\mathcal{K}_{12,1}(13|13|013|13|123|23, \infty) \Rightarrow 23|13|013|13|123|23$ (Case 1).

$\mathcal{K}_{12,2}(13|13|012|13|123|23, 4, 6) \Rightarrow 12|23|013|23|123|23, 23|12|013|23|123|23$ (Case 1).

$\mathcal{K}_{12,4}(13|13|012|13|123|23, 6) \Rightarrow 23|23|012|13|123|23$ (Case 1).

$\mathcal{K}_{13,2}(12|12|012|13|123|23, 3, 6) \Rightarrow 12|23|023|13|123|23, 23|12|023|13|123|23$ (Case 1).

$\mathcal{K}_{13,3}(12|12|012|13|123|23, 6) \Rightarrow 23|23|012|13|123|23$ (Case 1).

$\mathcal{K}_{13,4}(03|23|023|23|123|23, \infty, 1, 2, 3, 6) \Rightarrow 02|23|023|13|123|23, 01|23|023|13|123|23, 02|13|023|13|123|23,$
$02|23|013|13|123|23, 01|13|013|23|123|23$ (Case 1).

$\mathcal{K}_{13,2}(03|23|023|23|123|23, \infty, 3) \Rightarrow 02|13|023|23|123|23, 02|13|013|23|123|23$ (Case 1).

$\mathcal{K}_{13,1}(03|23|023|23|123|23, \infty) \Rightarrow 01|23|023|23|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|03|023|23|123|23$

$\mathcal{K}_{12,2}(02|23|013|23|123|23, \infty, 3, 4, 6) \Rightarrow 02|13|013|23|123|23, 02|13|023|23|123|23, 02|13|013|13|123|23,$
$01|23|023|13|123|23$ (Case 1).
$\mathcal{K}_{12,4}(02|23|013|23|123|23, \infty, 3, 6) \Rightarrow 02|23|013|13|123|23, 02|23|023|13|123|23, 01|13|023|23|123|23$
(Case 1).
$\mathcal{K}_{12,1}(02|23|013|23|123|23, \infty) \Rightarrow 01|23|013|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|02|013|23|123|23$

$\mathcal{K}_{02,3}(01|23|013|13|123|23, \infty, 5, 6) \Rightarrow 01|23|123|13|123|23, 01|23|123|13|013|23, 12|03|013|13|013|23$
(Case 1).
$\mathcal{K}_{02,5}(01|23|013|13|123|23, \infty, 6) \Rightarrow 01|23|013|13|013|23, 12|03|123|13|123|23$ (Case 1).
$\mathcal{K}_{02,1}(01|23|013|13|123|23, \infty) \Rightarrow 12|23|013|13|123|23$ (Case 1).
$\mathcal{K}_{02,6}(01|23|013|13|123|23, \infty) \Rightarrow 12|03|123|13|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|01|013|13|123|23, (3124) \Rightarrow 23|13|013|01|123|23$
and $(3214) \Rightarrow 13|23|013|01|123|23$

$\mathcal{K}_{13,2}(01|23|012|13|123|23, 3, 6) \Rightarrow 01|12|023|13|123|23, 03|23|023|13|123|23$ (Case 1).
$\mathcal{K}_{13,3}(01|23|012|13|123|23, 6) \Rightarrow 03|12|012|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|01|012|13|123|23$

$\mathcal{K}_{02,3}(02|12|013|13|123|23, 5, 6) \Rightarrow 02|12|123|13|013|23, 02|01|013|13|013|23$ (Case 1).
$\mathcal{K}_{02,5}(02|12|013|13|123|23, 6) \Rightarrow 02|01|123|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|02|013|13|123|23$

$\mathcal{K}_{12,4}(01|13|013|13|123|23, \infty, 1, 2, 3, 6) \Rightarrow 01|13|013|23|123|23, 02|13|013|23|123|23, 01|23|013|23|123|23,$
$01|13|023|23|123|23, 02|23|023|13|123|23$ (Case 1).
$\mathcal{K}_{12,1}(01|13|013|13|123|23, \infty) \Rightarrow 02|13|013|13|123|23$ (Case 1).
$\mathcal{K}_{12,2}(01|13|013|13|123|23, 3, 6) \Rightarrow 01|23|023|13|123|23, 02|13|023|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|01|013|13|123|23$

$\mathcal{K}_{12,3}(01|12|013|13|123|23, 4, 6) \Rightarrow 01|13|023|23|123|23, 02|12|013|23|123|23$ (Case 1).
$\mathcal{K}_{12,4}(01|12|013|13|123|23, 6) \Rightarrow 02|12|023|13|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 01|12|012|13|123|23, (2134) \Rightarrow 12|01|013|13|123|23$
and $(2314) \Rightarrow 12|01|012|13|123|23$

$\mathcal{K}_{12,2}(01|13|012|13|123|23, 4, 6) \Rightarrow 01|23|013|23|123|23, 03|12|013|23|123|23$ (Case 1).
$\mathcal{K}_{12,4}(01|13|012|13|123|23, 6) \Rightarrow 02|23|012|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|01|012|13|123|23$

$\mathcal{K}_{01,2}(03|03|023|23|123|23, 3, 5) \Rightarrow 03|13|123|23|123|23, 13|03|123|23|123|23$ (Case 1).
$\mathcal{K}_{01,3}(03|03|023|23|123|23, 5) \Rightarrow 13|13|023|23|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 03|23|023|03|123|23$ and $(2314) \Rightarrow 23|03|023|03|123|23$

$\mathcal{K}_{01,2}(02|03|023|23|123|23, 3, 5) \Rightarrow 02|13|123|23|123|23, 12|03|123|23|123|23$ (Case 1).

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$\mathcal{K}_{01,3}(02|03|023|23|123|23, 5) \Rightarrow 12|13|023|23|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 02|23|023|03|123|23$ and $(2314) \Rightarrow 23|02|023|03|123|23$

$\mathcal{K}_{02,2}(01|01|023|23|123|23, \infty, 1, 5, 6) \Rightarrow 01|13|023|23|123|23, 13|13|023|23|123|23, 01|02|123|23|013|23,$
$02|01|123|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,1}(01|01|023|23|123|23, \infty) \Rightarrow 13|01|023|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(01|01|023|23|123|23, \infty) \Rightarrow 01|01|123|23|013|23$ (Case 1).
$\quad \mathcal{K}_{02,6}(01|01|023|23|123|23, \infty) \Rightarrow 02|02|123|13|013|23$ (Case 1).

$\mathcal{K}_{03,1}(01|01|013|23|123|23, \infty, 2, 6) \Rightarrow 13|01|013|23|123|23, 13|13|013|23|123|23, 01|02|012|13|013|23$
(Case 1).
$\quad \mathcal{K}_{03,2}(01|01|013|23|123|23, \infty, 6) \Rightarrow 01|13|013|23|123|23, 02|01|012|13|013|23$ (Case 1).
$\quad \mathcal{K}_{03,6}(01|01|013|23|123|23, \infty) \Rightarrow 02|02|012|13|013|23$ (Case 1).

$\mathcal{K}_{02,2}(03|03|023|13|123|23, 5, 6) \Rightarrow 03|23|023|13|013|23, 23|03|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(03|03|023|13|123|23, 6) \Rightarrow 23|23|023|13|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 03|13|023|03|123|23$ and $(2314) \Rightarrow 13|03|023|03|123|23$

$\mathcal{K}_{01,2}(02|02|023|13|123|23, \infty, 1, 3, 5) \Rightarrow 02|12|023|13|123|23, 12|12|023|13|123|23, 02|12|123|13|123|23,$
$12|02|123|03|123|23$ (Case 1).
$\quad \mathcal{K}_{01,1}(02|02|023|13|123|23, \infty) \Rightarrow 12|02|023|13|123|23$ (Case 1).
$\quad \mathcal{K}_{01,3}(02|02|023|13|123|23, \infty) \Rightarrow 02|02|123|13|123|23$ (Case 1).
$\quad \mathcal{K}_{01,5}(02|02|023|13|123|23, \infty) \Rightarrow 12|12|123|03|123|23$ (Case 1).

$\mathcal{K}_{02,2}(01|03|023|13|123|23, 5, 6) \Rightarrow 01|23|023|13|013|23, 12|03|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(01|03|023|13|123|23, 6) \Rightarrow 12|23|023|13|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 01|13|023|03|123|23, (2134) \Rightarrow 03|01|023|13|123|23,$
$(2314) \Rightarrow 13|01|023|03|123|23, (3124) \Rightarrow 03|13|023|01|123|23$ and $(3214) \Rightarrow 13|03|023|01|123|23$

$\mathcal{K}_{02,2}(01|01|023|13|123|23, 5, 6) \Rightarrow 01|12|023|13|013|23, 12|01|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(01|01|023|13|123|23, 6) \Rightarrow 12|12|023|13|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 01|13|023|01|123|23$ and $(2314) \Rightarrow 13|01|023|01|123|23$

$\mathcal{K}_{02,2}(03|03|013|13|123|23, \infty, 3, 5, 6) \Rightarrow 03|23|013|13|123|23, 03|23|123|13|123|23, 03|23|013|13|013|23,$
$23|03|123|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(03|03|013|13|123|23, \infty, 5, 6) \Rightarrow 03|03|123|13|123|23, 03|03|123|13|013|23, 23|23|013|13|013|23$
(Case 1).
$\quad \mathcal{K}_{02,1}(03|03|013|13|123|23, \infty) \Rightarrow 23|03|013|13|123|23$ (Case 1).

$\mathcal{K}_{02,2}(03|03|012|13|123|23, 5, 6) \Rightarrow 03|23|012|13|013|23, 23|03|012|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(03|03|012|13|123|23, 6) \Rightarrow 23|23|012|13|123|23$ (Case 1).
Free by vertex permutation: $(1324) \Rightarrow 03|13|012|03|123|23$ and $(2314) \Rightarrow 13|03|012|03|123|23$

$\mathcal{K}_{03,3}(02|02|012|13|123|23, 2, 5, 6) \Rightarrow 02|23|123|13|123|23, 03|03|123|12|013|23, 23|23|013|01|013|23$
(Case 1).

$\mathcal{K}_{03,5}(02|02|012|13|123|23, 2, 6) \Rightarrow 03|23|013|12|013|23, 23|23|123|01|123|23$ (Case 1).

$\mathcal{K}_{03,2}(02|02|012|13|123|23, 6) \Rightarrow 23|03|123|01|013|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 03|12|013|03|123|23$ and $(2314) \Rightarrow 12|03|013|03|123|23$

$\mathcal{K}_{02,3}(01|03|013|13|123|23, \infty, 1, 2, 5, 6) \Rightarrow 01|03|123|13|123|23, 12|03|123|13|123|23, 01|23|123|13|123|23,$
$01|03|123|13|013|23, 12|23|013|13|013|23$ (Case 1).

$\mathcal{K}_{02,1}(01|03|013|13|123|23, \infty) \Rightarrow 12|03|013|13|123|23$ (Case 1).

$\mathcal{K}_{02,2}(01|03|013|13|123|23, 5, 6) \Rightarrow 01|23|013|13|013|23, 12|03|123|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|01|013|13|123|23$

$\mathcal{K}_{02,3}(01|02|013|13|123|23, 5, 6) \Rightarrow 01|02|123|13|013|23, 12|02|013|13|013|23$ (Case 1).

$\mathcal{K}_{02,5}(01|02|013|13|123|23, 6) \Rightarrow 12|02|123|13|123|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 01|12|012|03|123|23, (2134) \Rightarrow 02|01|013|13|123|23,$
$(2314) \Rightarrow 12|01|012|03|123|23, (3124) \Rightarrow 02|13|013|01|123|23, (3142) \Rightarrow 01|12|023|03|123|23,$
$(3214) \Rightarrow 13|02|013|01|123|23$ and $(3241) \Rightarrow 12|01|023|03|123|23$

$\mathcal{K}_{02,2}(01|03|012|13|123|23, 5, 6) \Rightarrow 01|23|012|13|013|23, 12|03|012|13|013|23$ (Case 1).

$\mathcal{K}_{02,5}(01|03|012|13|123|23, 6) \Rightarrow 12|23|012|13|123|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 01|13|012|03|123|23, (2134) \Rightarrow 03|01|012|13|123|23,$
$(2314) \Rightarrow 13|01|012|03|123|23, (3124) \Rightarrow 02|12|013|01|123|23$ and $(3214) \Rightarrow 12|02|013|01|123|23$

$\mathcal{K}_{12,2}(13|13|123|01|123|23, 4, 6) \Rightarrow 12|23|123|03|123|23, 23|12|123|03|123|23$ (Case 1).

$\mathcal{K}_{12,4}(13|13|123|01|123|23, 6) \Rightarrow 23|23|123|01|123|23$ (Case 1).

$\mathcal{K}_{12,2}(01|23|123|01|123|23, 4, 6) \Rightarrow 01|12|123|03|123|23, 03|23|123|03|123|23$ (Case 1).

$\mathcal{K}_{12,4}(01|23|123|01|123|23, 6) \Rightarrow 02|13|123|01|123|23$ (Case 1).

Free by vertex permutation: $(1243) \Rightarrow 23|01|013|01|013|23, (2134) \Rightarrow 23|01|123|01|123|23,$
$(2143) \Rightarrow 01|23|013|01|013|23$ and $(3142) \Rightarrow 01|01|013|23|013|23$

$\mathcal{K}_{12,2}(01|13|123|01|123|23, 4, 6) \Rightarrow 01|23|123|03|123|23, 03|12|123|03|123|23$ (Case 1).

$\mathcal{K}_{12,4}(01|13|123|01|123|23, 6) \Rightarrow 03|23|123|01|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 13|01|123|01|123|23$

$\mathcal{K}_{01,1}(03|03|123|03|123|23, \infty, 2, 4) \Rightarrow 13|03|123|03|123|23, 13|13|123|03|123|23, 13|03|123|13|123|23$
(Case 1).

$\mathcal{K}_{01,2}(03|03|123|03|123|23, \infty, 4) \Rightarrow 03|13|123|03|123|23, 03|13|123|13|123|23$ (Case 1).

$\mathcal{K}_{01,4}(03|03|123|03|123|23, \infty) \Rightarrow 03|03|123|13|123|23$ (Case 1).

$\mathcal{K}_{01,2}(02|02|123|03|123|23, \infty, 1, 4, 5) \Rightarrow 02|12|123|03|123|23, 12|12|123|03|123|23, 02|12|123|13|123|23,$
$12|02|023|13|123|23$ (Case 1).

$\mathcal{K}_{01,1}(02|02|123|03|123|23, \infty) \Rightarrow 12|02|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,4}(02|02|123|03|123|23, \infty) \Rightarrow 02|02|123|13|123|23$ (Case 1).

$\mathcal{K}_{01,5}(02|02|123|03|123|23, \infty) \Rightarrow 12|12|023|13|123|23$ (Case 1).

$\mathcal{K}_{03,1}(01|01|123|03|123|23, \infty, 2, 5) \Rightarrow 13|01|123|03|123|23, 13|13|123|03|123|23, 02|01|023|12|013|23$
(Case 1).

$\qquad \mathcal{K}_{03,2}(01|01|123|03|123|23, \infty, 5) \Rightarrow 01|13|123|03|123|23, 01|02|023|12|013|23$ (Case 1).

$\qquad \mathcal{K}_{03,5}(01|01|123|03|123|23, \infty) \Rightarrow 01|01|023|12|013|23$ (Case 1).

$\qquad \mathcal{K}_{02,4}(03|03|123|01|123|23, 2, 5, 6) \Rightarrow 02|23|123|13|123|23, 03|03|123|12|013|23, 23|23|013|01|013|23$
(Case 1).

$\qquad \mathcal{K}_{02,5}(03|03|123|01|123|23, 2, 6) \Rightarrow 03|23|123|01|013|23, 23|23|012|13|123|23$ (Case 1).

$\qquad \mathcal{K}_{02,2}(03|03|123|01|123|23, 6) \Rightarrow 23|03|013|12|013|23$ (Case 1).

$\qquad \mathcal{K}_{01,5}(12|13|023|03|123|23, \infty, 1, 2, 3, 4) \Rightarrow 02|03|123|13|123|23, 12|03|123|13|123|23, 02|13|123|13|123|23,$
$02|03|023|13|123|23, 02|03|123|03|123|23$ (Case 1).

$\qquad \mathcal{K}_{01,3}(12|13|023|03|123|23, \infty) \Rightarrow 12|13|123|03|123|23$ (Case 1).

$\qquad \mathcal{K}_{01,4}(12|13|023|03|123|23, \infty) \Rightarrow 12|13|023|13|123|23$ (Case 1).

$\qquad$ Free by vertex permutation: $(2134) \Rightarrow 13|12|023|03|123|23$

$\qquad \mathcal{K}_{01,3}(12|12|023|03|123|23, \infty, 1, 2) \Rightarrow 12|12|123|03|123|23, 02|12|123|03|123|23, 12|02|123|03|123|23$
(Case 1).

$\qquad \mathcal{K}_{01,4}(12|12|023|03|123|23, \infty, 1, 2) \Rightarrow 12|12|023|13|123|23, 02|12|023|13|123|23, 12|02|023|13|123|23$
(Case 1).

$\qquad \mathcal{K}_{01,5}(12|12|023|03|123|23, \infty, 1, 2) \Rightarrow 02|02|123|13|123|23, 12|02|123|13|123|23, 02|12|123|13|123|23$
(Case 1).

$\qquad \mathcal{K}_{02,4}(13|23|013|03|123|23, \infty, 5, 6) \Rightarrow 13|23|013|23|123|23, 13|23|013|23|013|23, 03|13|023|13|013|23$
(Case 1).

$\qquad \mathcal{K}_{02,5}(13|23|013|03|123|23, \infty, 6) \Rightarrow 03|23|013|13|013|23, 13|03|123|23|123|23$ (Case 1).

$\qquad \mathcal{K}_{02,3}(13|23|013|03|123|23, \infty) \Rightarrow 13|23|123|03|123|23$ (Case 1).

$\qquad \mathcal{K}_{02,6}(13|23|013|03|123|23, \infty) \Rightarrow 13|03|123|23|013|23$ (Case 1).

$\qquad$ Free by vertex permutation: $(2134) \Rightarrow 23|13|013|03|123|23$

$\qquad \mathcal{K}_{02,5}(12|23|013|03|123|23, 1, 2, 3, 4, 6) \Rightarrow 01|23|013|13|013|23, 02|13|013|13|013|23, 02|23|023|13|013|23,$
$12|23|013|23|013|23, 01|03|123|23|123|23$ (Case 1).

$\qquad \mathcal{K}_{02,6}(12|23|013|03|123|23, 3, 4) \Rightarrow 01|13|013|23|013|23, 01|13|023|13|013|23$ (Case 1).

$\qquad$ Free by vertex permutation: $(2134) \Rightarrow 23|12|013|03|123|23$

$\qquad \mathcal{K}_{03,6}(13|23|012|03|123|23, \infty, 1, 2, 3, 5) \Rightarrow 01|13|023|12|013|23, 02|13|023|12|013|23, 01|23|023|12|013|23,$
$01|13|013|12|013|23, 01|02|123|03|123|23$ (Case 1).

$\qquad \mathcal{K}_{03,3}(13|23|012|03|123|23, \infty) \Rightarrow 13|23|123|03|123|23$ (Case 1).

$\qquad \mathcal{K}_{03,5}(13|23|012|03|123|23, \infty) \Rightarrow 02|23|013|12|013|23$ (Case 1).

$\qquad$ Free by vertex permutation: $(2134) \Rightarrow 23|13|012|03|123|23$

$\qquad \mathcal{K}_{02,5}(12|23|012|03|123|23, \infty, 1, 2, 4, 6) \Rightarrow 02|23|012|13|013|23, 01|23|012|13|013|23, 02|13|012|13|013|23,$
$12|23|012|23|013|23, 01|02|013|23|123|23$ (Case 1).

$\qquad \mathcal{K}_{02,4}(12|23|012|03|123|23, \infty) \Rightarrow 13|23|013|23|123|23$ (Case 1).

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$\mathcal{K}_{02,6}(12|23|012|03|123|23, \infty) \Rightarrow 01|13|012|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|12|012|03|123|23$

$\mathcal{K}_{02,4}(12|13|013|03|123|23, \infty, 5, 6) \Rightarrow 12|13|013|23|123|23, 12|13|013|23|013|23, 01|03|023|13|013|23$
(Case 1).
$\mathcal{K}_{02,5}(12|13|013|03|123|23, \infty, 6) \Rightarrow 02|03|013|13|013|23, 01|13|123|23|123|23$ (Case 1).
$\mathcal{K}_{02,3}(12|13|013|03|123|23, \infty) \Rightarrow 12|13|123|03|123|23$ (Case 1).
$\mathcal{K}_{02,6}(12|13|013|03|123|23, \infty) \Rightarrow 01|13|123|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|12|013|03|123|23$

$\mathcal{K}_{02,4}(13|23|023|01|123|23, 5, 6) \Rightarrow 13|23|023|12|013|23, 03|13|123|01|013|23$ (Case 1).
$\mathcal{K}_{02,5}(13|23|023|01|123|23, 6) \Rightarrow 12|02|023|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|13|023|01|123|23$

$\mathcal{K}_{02,4}(12|13|023|01|123|23, 5, 6) \Rightarrow 12|13|023|12|013|23, 01|03|123|01|013|23$ (Case 1).
$\mathcal{K}_{02,5}(12|13|023|01|123|23, 6) \Rightarrow 01|12|023|13|123|23$ (Case 1).

$\mathcal{K}_{03,4}(23|23|013|01|123|23, \infty, 1, 2) \Rightarrow 23|23|013|13|123|23, 02|23|013|13|123|23, 23|02|013|13|123|23$
(Case 1).
$\mathcal{K}_{03,5}(23|23|013|01|123|23, \infty, 1, 2) \Rightarrow 23|23|012|01|013|23, 13|23|012|01|013|23, 23|13|012|01|013|23$
(Case 1).
$\mathcal{K}_{03,6}(23|23|013|01|123|23, \infty, 1, 2) \Rightarrow 03|03|012|12|013|23, 23|03|012|12|013|23, 03|23|012|12|013|23$
(Case 1).

$\mathcal{K}_{02,6}(12|23|013|01|123|23, 2, 3, 4, 5) \Rightarrow 01|23|123|12|013|23, 01|03|013|12|013|23, 01|03|123|01|013|23,$
$01|02|123|13|123|23$ (Case 1).
$\mathcal{K}_{02,3}(12|23|013|01|123|23, 2, 5) \Rightarrow 12|03|123|01|123|23, 12|23|123|01|013|23$ (Case 1).
$\mathcal{K}_{02,2}(12|23|013|01|123|23, 5) \Rightarrow 02|13|013|01|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|12|013|01|123|23$

$\mathcal{K}_{02,6}(12|13|013|01|123|23, \infty, 3, 4, 5) \Rightarrow 01|13|123|12|013|23, 01|13|013|12|013|23, 01|13|123|01|013|23,$
$01|12|123|13|123|23$ (Case 1).
$\mathcal{K}_{02,3}(12|13|013|01|123|23, \infty) \Rightarrow 12|13|123|01|123|23$ (Case 1).
$\mathcal{K}_{02,4}(12|13|013|01|123|23, \infty) \Rightarrow 13|12|012|13|123|23$ (Case 1).
$\mathcal{K}_{02,5}(12|13|013|01|123|23, \infty) \Rightarrow 12|13|013|01|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|12|013|01|123|23$

$\mathcal{K}_{01,3}(03|12|023|03|123|23, \infty, 4, 5) \Rightarrow 03|12|123|03|123|23, 03|12|123|13|123|23, 13|02|023|13|123|23$
(Case 1).
$\mathcal{K}_{01,4}(03|12|023|03|123|23, \infty, 5) \Rightarrow 03|12|023|13|123|23, 13|02|123|03|123|23$ (Case 1).
$\mathcal{K}_{01,5}(03|12|023|03|123|23, \infty) \Rightarrow 13|02|123|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|03|023|03|123|23$

$\mathcal{K}_{02,4}(02|12|023|03|123|23, 5, 6) \Rightarrow 12|02|123|23|013|23, 12|01|123|13|013|23$ (Case 1).

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$\mathcal{K}_{02,5}(02|12|023|03|123|23, 6) \Rightarrow 03|01|023|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|02|023|03|123|23$

$\mathcal{K}_{02,4}(03|23|013|03|123|23, 3, 5, 6) \Rightarrow 03|23|123|23|123|23, 13|23|013|23|013|23, 23|13|023|13|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(03|23|013|03|123|23, 3, 6) \Rightarrow 13|23|023|13|013|23, 23|03|123|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(03|23|013|03|123|23, 6) \Rightarrow 23|13|013|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|03|013|03|123|23$

$\mathcal{K}_{02,5}(02|23|013|03|123|23, \infty, 3, 4, 6) \Rightarrow 12|23|013|13|013|23, 12|23|023|13|013|23, 12|23|013|23|013|23,$
$02|03|123|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(02|23|013|03|123|23, \infty, 4, 6) \Rightarrow 02|23|123|03|123|23, 03|23|123|23|123|23, 12|13|013|23|013|23$
(Case 1).
$\quad \mathcal{K}_{02,4}(02|23|013|03|123|23, 6) \Rightarrow 12|13|023|13|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|02|013|03|123|23$

$\mathcal{K}_{02,4}(01|23|013|03|123|23, 3, 5, 6) \Rightarrow 01|23|123|23|123|23, 01|23|013|23|013|23, 02|13|023|13|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(01|23|013|03|123|23, 3, 6) \Rightarrow 01|23|023|13|013|23, 12|03|123|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(01|23|013|03|123|23, 6) \Rightarrow 02|13|013|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|01|013|03|123|23, (3124) \Rightarrow 23|03|013|01|123|23$
and $(3214) \Rightarrow 03|23|013|01|123|23$

$\mathcal{K}_{02,4}(01|23|012|03|123|23, \infty, 5, 6) \Rightarrow 01|23|013|23|123|23, 01|23|012|23|013|23, 02|13|012|13|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(01|23|012|03|123|23, \infty, 6) \Rightarrow 01|23|012|13|013|23, 13|02|013|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,6}(01|23|012|03|123|23, \infty) \Rightarrow 02|13|012|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|01|012|03|123|23$

$\mathcal{K}_{02,4}(03|13|013|03|123|23, \infty, 3, 5, 6) \Rightarrow 03|13|013|23|123|23, 03|13|123|23|123|23, 03|13|013|23|013|23,$
$23|03|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(03|13|013|03|123|23, \infty, 5, 6) \Rightarrow 03|13|123|03|123|23, 13|03|023|13|013|23, 23|13|013|23|013|23$
(Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|03|013|03|123|23$

$\mathcal{K}_{02,4}(02|13|013|03|123|23, 5, 6) \Rightarrow 02|13|013|23|013|23, 12|03|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(02|13|013|03|123|23, 6) \Rightarrow 02|13|123|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|02|013|03|123|23, (3124) \Rightarrow 12|02|012|03|123|23$
and $(3214) \Rightarrow 02|12|012|03|123|23$

$\mathcal{K}_{02,4}(03|12|012|03|123|23, \infty, 5, 6) \Rightarrow 02|13|013|23|123|23, 03|12|012|23|013|23, 23|01|012|13|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(03|12|012|03|123|23, \infty, 6) \Rightarrow 13|02|012|13|013|23, 23|01|013|23|123|23$ (Case 1).
$\quad \mathcal{K}_{02,6}(03|12|012|03|123|23, \infty) \Rightarrow 23|01|012|23|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|03|012|03|123|23$

$\mathcal{K}_{02,4}(01|13|013|03|123|23, \infty, 3, 5, 6) \Rightarrow 01|13|013|23|123|23, 01|13|123|23|123|23, 01|13|013|23|013|23,$
$02|03|023|13|013|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(01|13|013|03|123|23, \infty, 5, 6) \Rightarrow 01|13|123|03|123|23, 01|03|023|13|013|23, 12|13|013|23|013|23$
(Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 13|01|013|03|123|23$

$\mathcal{K}_{02,4}(01|23|023|01|123|23, \infty, 5, 6) \Rightarrow 01|23|023|13|123|23, 01|23|023|12|013|23, 02|13|123|01|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(01|23|023|01|123|23, \infty, 6) \Rightarrow 01|23|123|01|013|23, 13|02|023|13|123|23$ (Case 1).
$\quad \mathcal{K}_{02,6}(01|23|023|01|123|23, \infty) \Rightarrow 12|03|023|12|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 23|01|023|01|123|23$

$\mathcal{K}_{02,4}(02|23|013|01|123|23, \infty, 5, 6) \Rightarrow 03|23|012|13|123|23, 02|23|013|12|013|23, 02|03|123|01|013|23$
(Case 1).
$\quad \mathcal{K}_{02,5}(02|23|013|01|123|23, \infty, 6) \Rightarrow 12|23|013|01|013|23, 03|02|123|13|123|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(02|23|013|01|123|23, \infty) \Rightarrow 03|23|123|01|123|23$ (Case 1).
$\quad \mathcal{K}_{02,6}(02|23|013|01|123|23, \infty) \Rightarrow 02|03|123|12|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 23|02|013|01|123|23$

$\mathcal{K}_{02,4}(01|23|013|01|123|23, 1, 3, 5, 6) \Rightarrow 13|23|012|13|123|23, 01|23|123|13|123|23, 01|23|013|12|013|23,$
$12|03|123|01|013|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(01|23|013|01|123|23, 1, 3, 6) \Rightarrow 12|23|013|01|013|23, 01|23|123|01|013|23, 13|02|123|13|123|23$
(Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 23|01|013|01|123|23$

$\mathcal{K}_{02,4}(03|13|013|01|123|23, 1, 3, 5, 6) \Rightarrow 23|12|012|13|123|23, 02|12|123|13|123|23, 03|13|013|12|013|23,$
$23|13|123|01|013|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(03|13|013|01|123|23, 1, 5) \Rightarrow 23|13|123|01|123|23, 03|13|123|01|013|23$ (Case 1).
$\quad \mathcal{K}_{02,1}(03|13|013|01|123|23, 5) \Rightarrow 23|13|013|01|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 13|03|013|01|123|23$

$\mathcal{K}_{02,4}(01|13|013|01|123|23, 1, 3, 5, 6) \Rightarrow 13|12|012|13|123|23, 01|12|123|13|123|23, 01|13|013|12|013|23,$
$12|13|123|01|013|23$ (Case 1).
$\quad \mathcal{K}_{02,3}(01|13|013|01|123|23, 1, 5) \Rightarrow 12|13|123|01|123|23, 01|13|123|01|013|23$ (Case 1).
$\quad \mathcal{K}_{02,1}(01|13|013|01|123|23, 5) \Rightarrow 12|13|013|01|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 13|01|013|01|123|23$

$\mathcal{K}_{03,4}(01|12|013|01|123|23, 5, 6) \Rightarrow 01|13|012|12|013|23, 12|13|012|01|013|23$ (Case 1).
$\quad \mathcal{K}_{03,5}(01|12|013|01|123|23, 6) \Rightarrow 13|12|013|13|123|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 12|01|013|01|123|23$

$\mathcal{K}_{01,3}(02|03|023|03|123|23, \infty, 2, 4, 5) \Rightarrow 02|03|123|03|123|23, 02|13|123|03|123|23, 02|03|123|13|123|23,$
$12|13|023|13|123|23$ (Case 1).

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$\mathcal{K}_{01,4}(02|03|023|03|123|23, \infty, 2, 5) \Rightarrow 02|03|023|13|123|23, 02|13|023|13|123|23, 12|13|123|03|123|23$ (Case 1).

Free by vertex permutation: $(1432) \Rightarrow 12|13|123|23|013|23$, $(2134) \Rightarrow 03|02|023|03|123|23$ and $(2431) \Rightarrow 13|12|123|23|013|23$

$\mathcal{K}_{01,3}(02|02|023|03|123|23, 2, 4, 5) \Rightarrow 02|12|123|03|123|23, 02|02|123|13|123|23, 12|12|023|13|123|23$ (Case 1).

$\mathcal{K}_{01,4}(02|02|023|03|123|23, 2, 5) \Rightarrow 02|12|023|13|123|23, 12|12|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,2}(02|02|023|03|123|23, 5) \Rightarrow 12|02|123|13|123|23$ (Case 1).

Free by vertex permutation: $(4123) \Rightarrow 23|12|123|13|013|23$, $(4132) \Rightarrow 23|13|123|12|013|23$, $(4213) \Rightarrow 12|23|123|13|013|23$ and $(4231) \Rightarrow 13|23|123|12|013|23$

$\mathcal{K}_{02,4}(01|03|023|03|123|23, \infty, 2, 5, 6) \Rightarrow 01|03|023|23|123|23, 01|23|023|23|123|23, 01|13|123|23|013|23, 02|23|123|13|013|23$ (Case 1).

$\mathcal{K}_{02,5}(01|03|023|03|123|23, \infty, 2, 6) \Rightarrow 01|13|123|13|013|23, 01|23|123|13|013|23, 13|23|023|23|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|01|023|03|123|23$

$\mathcal{K}_{01,3}(01|02|023|03|123|23, 4, 5) \Rightarrow 01|02|123|13|123|23, 01|12|023|13|123|23$ (Case 1).

$\mathcal{K}_{01,4}(01|02|023|03|123|23, 5) \Rightarrow 01|12|123|03|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 02|01|023|03|123|23$

$\mathcal{K}_{02,4}(01|01|023|03|123|23, 2, 5, 6) \Rightarrow 01|13|023|23|123|23, 01|01|123|23|013|23, 02|02|123|13|013|23$ (Case 1).

$\mathcal{K}_{02,5}(01|01|023|03|123|23, 2, 6) \Rightarrow 01|02|123|13|013|23, 13|13|023|23|123|23$ (Case 1).

$\mathcal{K}_{02,2}(01|01|023|03|123|23, 6) \Rightarrow 02|01|123|23|013|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 01|03|023|01|123|23$ and $(2314) \Rightarrow 03|01|023|01|123|23$

$\mathcal{K}_{02,5}(02|03|013|03|123|23, \infty, 3, 4, 6) \Rightarrow 12|13|013|13|013|23, 12|13|023|13|013|23, 12|13|013|23|013|23, 03|23|123|23|123|23$ (Case 1).

$\mathcal{K}_{02,3}(02|03|013|03|123|23, \infty, 4, 6) \Rightarrow 02|03|123|03|123|23, 02|03|123|23|123|23, 12|23|013|23|013|23$ (Case 1).

$\mathcal{K}_{02,4}(02|03|013|03|123|23, 6) \Rightarrow 12|23|023|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|02|013|03|123|23$

$\mathcal{K}_{02,4}(01|03|013|03|123|23, 2, 3, 5, 6) \Rightarrow 01|23|013|23|123|23, 01|03|123|23|123|23, 01|13|013|23|013|23, 02|23|023|13|013|23$ (Case 1).

$\mathcal{K}_{02,3}(01|03|013|03|123|23, 2, 5, 6) \Rightarrow 01|23|123|03|123|23, 01|13|023|13|013|23, 12|23|013|23|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|01|013|03|123|23$

$\mathcal{K}_{02,4}(01|03|012|03|123|23, \infty, 2, 5, 6) \Rightarrow 01|02|013|23|123|23, 01|23|013|23|123|23, 01|13|012|23|013|23, 02|23|012|13|013|23$ (Case 1).

$\mathcal{K}_{02,6}(01|03|012|03|123|23, \infty, 2, 5) \Rightarrow 12|23|012|23|013|23, 02|13|012|23|013|23, 13|23|013|23|123|23$
(Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|01|012|03|123|23$

$\mathcal{K}_{03,3}(01|02|012|03|123|23, \infty, 2, 5, 6) \Rightarrow 01|02|123|03|123|23, 01|23|123|03|123|23, 01|13|023|12|013|23,$
$02|23|013|12|013|23$ (Case 1).

$\mathcal{K}_{03,5}(01|02|012|03|123|23, \infty, 2, 6) \Rightarrow 01|13|013|12|013|23, 01|23|013|12|013|23, 13|23|123|03|123|23$
(Case 1).

Free by vertex permutation: $(2134) \Rightarrow 02|01|012|03|123|23, (3124) \Rightarrow 03|02|013|01|123|23$
and $(3214) \Rightarrow 02|03|013|01|123|23$

$\mathcal{K}_{02,4}(03|03|013|01|123|23, 2, 3, 5, 6) \Rightarrow 02|23|012|13|123|23, 02|02|123|13|123|23, 03|03|013|12|013|23,$
$23|23|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,3}(03|03|013|01|123|23, 2, 5) \Rightarrow 03|23|123|01|123|23, 03|03|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,2}(03|03|013|01|123|23, 5) \Rightarrow 13|23|013|01|013|23$ (Case 1).

$\mathcal{K}_{03,4}(02|02|013|01|123|23, 2, 5, 6) \Rightarrow 02|23|013|13|123|23, 03|03|012|12|013|23, 23|23|012|01|013|23$
(Case 1).

$\mathcal{K}_{03,5}(02|02|013|01|123|23, 2, 6) \Rightarrow 13|23|012|01|013|23, 23|23|013|13|123|23$ (Case 1).

$\mathcal{K}_{03,2}(02|02|013|01|123|23, 6) \Rightarrow 23|03|012|12|013|23$ (Case 1).

$\mathcal{K}_{02,4}(01|03|013|01|123|23, 1, 3, 5, 6) \Rightarrow 13|02|012|13|123|23, 01|02|123|13|123|23, 01|03|013|12|013|23,$
$12|23|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,3}(01|03|013|01|123|23, 1, 5) \Rightarrow 12|03|123|01|123|23, 01|03|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,1}(01|03|013|01|123|23, 5) \Rightarrow 02|13|013|01|013|23$ (Case 1).

Free by vertex permutation: $(1432) \Rightarrow 12|03|123|12|013|23, (2134) \Rightarrow 03|01|013|01|123|23$
and $(2431) \Rightarrow 03|12|123|12|013|23$

$\mathcal{K}_{03,4}(01|02|013|01|123|23, 1, 5, 6) \Rightarrow 13|02|013|13|123|23, 01|03|012|12|013|23, 12|23|012|01|013|23$
(Case 1).

$\mathcal{K}_{03,5}(01|02|013|01|123|23, 1, 6) \Rightarrow 02|13|012|01|013|23, 13|23|013|13|123|23$ (Case 1).

$\mathcal{K}_{03,1}(01|02|013|01|123|23, 6) \Rightarrow 01|23|012|12|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 02|01|013|01|123|23$

$\mathcal{K}_{02,3}(13|23|123|23|013|23, \infty, 4, 5, 6) \Rightarrow 13|23|013|23|013|23, 03|23|013|13|013|23, 13|23|013|23|123|23,$
$13|03|123|03|123|23$ (Case 1).

$\mathcal{K}_{02,4}(13|23|123|23|013|23, \infty, 5, 6) \Rightarrow 03|23|023|13|013|23, 13|23|123|03|123|23, 13|03|013|23|123|23$
(Case 1).

$\mathcal{K}_{02,2}(13|23|123|23|013|23, \infty) \Rightarrow 13|03|123|23|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|13|123|23|013|23$ and $(3124) \Rightarrow 23|23|123|13|013|23$

$\mathcal{K}_{02,4}(12|23|123|23|013|23, 2, 3, 5, 6) \Rightarrow 02|13|023|13|013|23, 02|23|013|13|013|23, 12|23|123|03|123|23,$
$01|03|013|23|123|23$ (Case 1).

$\mathcal{K}_{02,3}(12|23|123|23|013|23, 2, 5, 6) \Rightarrow 02|13|013|23|013|23, 12|23|013|23|123|23, 01|03|123|03|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|12|123|23|013|23$

$\mathcal{K}_{03,2}(13|13|123|23|013|23, \infty, 3, 4, 6) \Rightarrow 13|01|123|23|013|23, 13|01|012|23|013|23, 03|01|023|12|013|23, 01|03|012|12|013|23$ (Case 1).

$\mathcal{K}_{03,3}(13|13|123|23|013|23, \infty, 4, 6) \Rightarrow 13|13|012|23|013|23, 03|03|012|12|013|23, 01|01|023|12|013|23$ (Case 1).

$\mathcal{K}_{03,1}(13|13|123|23|013|23, \infty) \Rightarrow 01|13|123|23|013|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 13|23|123|13|013|23$ and $(2314) \Rightarrow 23|13|123|13|013|23$

$\mathcal{K}_{02,4}(12|12|123|23|013|23, 1, 2, 3, 5) \Rightarrow 01|02|023|13|013|23, 02|01|023|13|013|23, 02|02|013|13|013|23, 12|12|123|03|123|23$ (Case 1).

$\mathcal{K}_{02,5}(12|12|123|23|013|23, 1, 2, 3) \Rightarrow 01|13|123|23|123|23, 13|01|123|23|123|23, 12|12|013|23|123|23$ (Case 1).

$\mathcal{K}_{02,3}(23|23|123|12|013|23, 2, 4, 5) \Rightarrow 23|03|013|12|013|23, 23|23|013|01|013|23, 23|23|012|13|123|23$ (Case 1).

$\mathcal{K}_{02,4}(23|23|123|12|013|23, 2, 5) \Rightarrow 23|03|123|01|013|23, 23|23|123|01|123|23$ (Case 1).

$\mathcal{K}_{02,2}(23|23|123|12|013|23, 5) \Rightarrow 23|02|123|13|123|23$ (Case 1).

$\mathcal{K}_{02,4}(12|23|123|12|013|23, 1, 2, 3, 5) \Rightarrow 01|23|123|01|013|23, 12|03|123|01|013|23, 12|23|013|01|013|23, 13|23|123|01|123|23$ (Case 1).

$\mathcal{K}_{02,5}(12|23|123|12|013|23, 1, 2, 3) \Rightarrow 01|23|123|13|123|23, 13|02|123|13|123|23, 13|23|012|13|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|12|123|12|013|23$

$\mathcal{K}_{01,2}(13|13|123|13|013|23, 3, 4) \Rightarrow 13|03|023|13|013|23, 03|13|023|13|013|23$ (Case 1).

$\mathcal{K}_{01,3}(13|13|123|13|013|23, 4) \Rightarrow 03|03|123|13|013|23$ (Case 1).

$\mathcal{K}_{01,2}(12|13|123|13|013|23, 3, 4) \Rightarrow 12|03|023|13|013|23, 02|13|023|13|013|23$ (Case 1).

$\mathcal{K}_{01,3}(12|13|123|13|013|23, 4) \Rightarrow 02|03|123|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 13|12|123|13|013|23$ and $(3124) \Rightarrow 13|13|123|12|013|23$

$\mathcal{K}_{01,2}(12|12|123|13|013|23, 3, 4) \Rightarrow 12|02|023|13|013|23, 02|12|023|13|013|23$ (Case 1).

$\mathcal{K}_{01,3}(12|12|123|13|013|23, 4) \Rightarrow 02|02|123|13|013|23$ (Case 1).

Free by vertex permutation: $(1324) \Rightarrow 12|13|123|12|013|23$ and $(2314) \Rightarrow 13|12|123|12|013|23$

$\mathcal{K}_{02,4}(01|23|123|23|013|23, 3, 5, 6) \Rightarrow 01|23|013|13|013|23, 01|23|123|03|123|23, 12|03|013|23|123|23$ (Case 1).

$\mathcal{K}_{02,5}(01|23|123|23|013|23, 3, 6) \Rightarrow 01|23|013|23|123|23, 02|13|013|13|013|23$ (Case 1).

$\mathcal{K}_{02,3}(01|23|123|23|013|23, 6) \Rightarrow 12|03|123|03|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 23|01|123|23|013|23$

$\mathcal{K}_{23,2}(02|12|123|12|013|23, 4, 5) \Rightarrow 02|13|123|13|013|23, 03|12|123|13|013|23$ (Case 1).

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$\mathcal{K}_{23,4}(02|12|123|12|013|23, 5) \Rightarrow 03|13|123|12|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|02|123|12|013|23$

$\mathcal{K}_{13,2}(03|03|123|23|013|23, 4, 6) \Rightarrow 03|01|123|12|013|23, 01|03|123|12|013|23$ (Case 1).
$\mathcal{K}_{13,4}(03|03|123|23|013|23, 6) \Rightarrow 01|01|123|23|013|23$ (Case 1).

$\mathcal{K}_{12,2}(02|02|123|23|013|23, \infty, 1, 4, 5) \Rightarrow 02|01|123|23|013|23, 01|01|123|23|013|23, 02|01|123|13|013|23,$
$13|01|023|23|123|23$ (Case 1).
$\mathcal{K}_{12,1}(02|02|123|23|013|23, \infty) \Rightarrow 01|02|123|23|013|23$ (Case 1).
$\mathcal{K}_{12,4}(02|02|123|23|013|23, \infty) \Rightarrow 02|02|123|13|013|23$ (Case 1).
$\mathcal{K}_{12,5}(02|02|123|23|013|23, \infty) \Rightarrow 13|13|023|23|123|23$ (Case 1).

$\mathcal{K}_{23,2}(02|02|123|12|013|23, 4, 5) \Rightarrow 02|03|123|13|013|23, 03|02|123|13|013|23$ (Case 1).
$\mathcal{K}_{23,4}(02|02|123|12|013|23, 5) \Rightarrow 03|03|123|12|013|23$ (Case 1).

$\mathcal{K}_{13,2}(01|01|123|12|013|23, 4, 6) \Rightarrow 01|03|123|23|013|23, 03|01|123|23|013|23$ (Case 1).
$\mathcal{K}_{13,4}(01|01|123|12|013|23, 6) \Rightarrow 03|03|123|12|013|23$ (Case 1).

$\mathcal{K}_{02,2}(23|23|013|23|013|23, 1, 4, 6) \Rightarrow 13|13|013|23|013|23, 23|13|013|13|013|23, 03|23|123|03|123|23$
(Case 1).
$\mathcal{K}_{02,4}(23|23|013|23|013|23, 1, 6) \Rightarrow 13|23|013|13|013|23, 03|03|123|23|123|23$ (Case 1).
$\mathcal{K}_{02,1}(23|23|013|23|013|23, 6) \Rightarrow 23|03|123|03|123|23$ (Case 1).

$\mathcal{K}_{02,1}(23|23|012|23|013|23, \infty, 2, 4) \Rightarrow 13|23|012|23|013|23, 13|13|012|23|013|23, 13|23|012|13|013|23$
(Case 1).
$\mathcal{K}_{02,2}(23|23|012|23|013|23, \infty, 4) \Rightarrow 23|13|012|23|013|23, 23|13|012|13|013|23$ (Case 1).
$\mathcal{K}_{02,4}(23|23|012|23|013|23, \infty) \Rightarrow 23|23|012|13|013|23$ (Case 1).

$\mathcal{K}_{23,2}(12|12|013|23|013|23, 3, 5) \Rightarrow 12|13|012|23|013|23, 13|12|012|23|013|23$ (Case 1).
$\mathcal{K}_{23,3}(12|12|013|23|013|23, 5) \Rightarrow 13|13|013|23|013|23$ (Case 1).

$\mathcal{K}_{23,2}(12|12|012|23|013|23, 3, 5) \Rightarrow 12|13|013|23|013|23, 13|12|013|23|013|23$ (Case 1).
$\mathcal{K}_{23,3}(12|12|012|23|013|23, 5) \Rightarrow 13|13|012|23|013|23$ (Case 1).

$\mathcal{K}_{02,2}(23|23|023|13|013|23, 5, 6) \Rightarrow 23|03|023|13|123|23, 03|23|023|13|123|23$ (Case 1).
$\mathcal{K}_{02,5}(23|23|023|13|013|23, 6) \Rightarrow 03|03|023|13|013|23$ (Case 1).

$\mathcal{K}_{12,1}(23|23|023|12|013|23, \infty, 2, 5) \Rightarrow 13|23|023|12|013|23, 13|13|023|12|013|23, 02|23|123|03|123|23$
(Case 1).
$\mathcal{K}_{12,2}(23|23|023|12|013|23, \infty, 5) \Rightarrow 23|13|023|12|013|23, 23|02|123|03|123|23$ (Case 1).
$\mathcal{K}_{12,5}(23|23|023|12|013|23, \infty) \Rightarrow 23|23|123|03|123|23$ (Case 1).

$\mathcal{K}_{01,2}(13|13|023|13|013|23, 3, 4) \Rightarrow 13|03|123|13|013|23, 03|13|123|13|013|23$ (Case 1).
$\mathcal{K}_{01,3}(13|13|023|13|013|23, 4) \Rightarrow 03|03|023|13|013|23$ (Case 1).

$\mathcal{K}_{23,2}(12|12|023|12|013|23, 4, 5) \Rightarrow 12|13|023|13|013|23, 13|12|023|13|013|23$ (Case 1).
$\mathcal{K}_{23,4}(12|12|023|12|013|23, 5) \Rightarrow 13|13|023|12|013|23$ (Case 1).

$\mathcal{K}_{02,6}(23|23|013|12|013|23, 2, 4, 5) \Rightarrow 03|23|123|01|123|23, 02|02|123|13|123|23, 03|03|123|01|013|23$
(Case 1).
$\mathcal{K}_{02,2}(23|23|013|12|013|23, 1, 3, 4, 5) \Rightarrow 03|03|013|12|013|23, 23|03|123|12|013|23, 23|13|013|01|013|23,$
$23|02|012|13|123|23$ (Case 1).
$\mathcal{K}_{02,3}(23|23|013|12|013|23, 4) \Rightarrow 23|23|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,2}(23|23|012|12|013|23, \infty, 1, 4, 5) \Rightarrow 23|03|012|12|013|23, 03|03|012|12|013|23, 23|13|012|01|013|23,$
$23|02|013|13|123|23$ (Case 1).
$\mathcal{K}_{02,1}(23|23|012|12|013|23, \infty) \Rightarrow 03|23|012|12|013|23$ (Case 1).
$\mathcal{K}_{02,4}(23|23|012|12|013|23, \infty) \Rightarrow 23|23|012|01|013|23$ (Case 1).
$\mathcal{K}_{02,5}(23|23|012|12|013|23, \infty) \Rightarrow 23|23|013|13|123|23$ (Case 1).

$\mathcal{K}_{12,2}(13|13|013|13|013|23, 1, 3, 4, 6) \Rightarrow 23|23|013|13|013|23, 13|23|023|13|013|23, 13|23|013|23|013|23,$
$23|03|123|23|123|23$ (Case 1).
$\mathcal{K}_{12,4}(13|13|013|13|013|23, 1, 6) \Rightarrow 23|13|013|23|013|23, 23|23|123|03|123|23$ (Case 1).
$\mathcal{K}_{12,1}(13|13|013|13|013|23, 6) \Rightarrow 03|23|123|23|123|23$ (Case 1).

$\mathcal{K}_{12,1}(13|13|012|13|013|23, \infty, 2, 4) \Rightarrow 23|13|012|13|013|23, 23|23|012|13|013|23, 23|13|012|23|013|23$
(Case 1).
$\mathcal{K}_{12,2}(13|13|012|13|013|23, \infty, 4) \Rightarrow 13|23|012|13|013|23, 13|23|012|23|013|23$ (Case 1).
$\mathcal{K}_{12,4}(13|13|012|13|013|23, \infty) \Rightarrow 13|13|012|23|013|23$ (Case 1).

$\mathcal{K}_{23,2}(02|12|013|23|013|23, 3, 5) \Rightarrow 02|13|012|23|013|23, 03|12|012|23|013|23$ (Case 1).
$\mathcal{K}_{23,3}(02|12|013|23|013|23, 5) \Rightarrow 03|13|013|23|013|23$ (Case 1).

$\mathcal{K}_{23,2}(02|12|012|23|013|23, 3, 5) \Rightarrow 02|13|013|23|013|23, 03|12|013|23|013|23$ (Case 1).
$\mathcal{K}_{23,3}(02|12|012|23|013|23, 5) \Rightarrow 03|13|012|23|013|23$ (Case 1).

$\mathcal{K}_{12,2}(02|23|023|12|013|23, \infty, 1, 3, 5) \Rightarrow 02|13|023|12|013|23, 01|13|023|12|013|23, 02|13|013|12|013|23,$
$13|02|123|03|123|23$ (Case 1).
$\mathcal{K}_{12,1}(02|23|023|12|013|23, \infty) \Rightarrow 01|23|023|12|013|23$ (Case 1).
$\mathcal{K}_{12,3}(02|23|023|12|013|23, \infty) \Rightarrow 02|23|013|12|013|23$ (Case 1).
$\mathcal{K}_{12,5}(02|23|023|12|013|23, \infty) \Rightarrow 13|23|123|03|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|02|023|12|013|23$

$\mathcal{K}_{12,3}(03|13|013|13|013|23, \infty, 4, 5, 6) \Rightarrow 03|13|023|13|013|23, 13|03|123|23|013|23, 13|03|123|03|123|23,$
$13|23|013|23|123|23$ (Case 1).
$\mathcal{K}_{12,4}(03|13|013|13|013|23, \infty, 5, 6) \Rightarrow 03|13|013|23|013|23, 13|03|013|23|123|23, 13|23|123|03|123|23$
(Case 1).
$\mathcal{K}_{12,2}(03|13|013|13|013|23, \infty) \Rightarrow 03|23|013|13|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|03|013|13|013|23$ and $(3124) \Rightarrow 03|03|013|13|013|23$

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$\mathcal{K}_{02,6}(03|12|013|12|013|23, 2, 4, 5) \Rightarrow 23|13|123|01|123|23, 23|01|123|13|123|23, 23|01|123|01|013|23$ (Case 1).

$\mathcal{K}_{02,3}(03|12|013|12|013|23, 2, 4, 5) \Rightarrow 03|01|123|12|013|23, 03|12|123|01|013|23, 02|13|123|13|123|23$ (Case 1).

$\mathcal{K}_{02,1}(03|12|013|12|013|23, 2, 4, 5) \Rightarrow 23|01|013|12|013|23, 23|12|013|01|013|23, 23|13|012|13|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|03|013|12|013|23$

$\mathcal{K}_{23,4}(02|12|013|12|013|23, \infty, 2, 3, 5) \Rightarrow 02|12|013|13|013|23, 02|13|013|13|013|23, 02|12|012|13|013|23,$ $03|13|012|12|013|23$ (Case 1).

$\mathcal{K}_{23,2}(02|12|013|12|013|23, \infty, 3, 5) \Rightarrow 02|13|013|12|013|23, 02|13|012|12|013|23, 03|12|012|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|02|013|12|013|23$ and $(3124) \Rightarrow 02|02|013|12|013|23$

$\mathcal{K}_{23,4}(02|12|012|12|013|23, \infty, 2, 3, 5) \Rightarrow 02|12|012|13|013|23, 02|13|012|13|013|23, 02|12|013|13|013|23,$ $03|13|013|12|013|23$ (Case 1).

$\mathcal{K}_{23,2}(02|12|012|12|013|23, \infty, 3, 5) \Rightarrow 02|13|012|12|013|23, 02|13|013|12|013|23, 03|12|013|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|02|012|12|013|23$ and $(3124) \Rightarrow 02|02|012|12|013|23$

$\mathcal{K}_{12,4}(01|13|013|13|013|23, 2, 3, 5, 6) \Rightarrow 01|23|013|23|013|23, 01|03|123|23|013|23, 01|03|013|23|123|23,$ $12|23|123|03|123|23$ (Case 1).

$\mathcal{K}_{12,3}(01|13|013|13|013|23, 2, 5, 6) \Rightarrow 01|23|023|13|013|23, 01|03|123|03|123|23, 12|23|013|23|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 13|01|013|13|013|23$

$\mathcal{K}_{12,2}(01|13|012|13|013|23, \infty, 1, 4, 6) \Rightarrow 01|23|012|13|013|23, 02|23|012|13|013|23, 01|23|012|23|013|23,$ $13|02|013|23|123|23$ (Case 1).

$\mathcal{K}_{12,1}(01|13|012|13|013|23, \infty) \Rightarrow 02|13|012|13|013|23$ (Case 1).

$\mathcal{K}_{12,4}(01|13|012|13|013|23, \infty) \Rightarrow 01|13|012|23|013|23$ (Case 1).

$\mathcal{K}_{12,6}(01|13|012|13|013|23, \infty) \Rightarrow 13|23|013|23|123|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 13|01|012|13|013|23$ and $(3124) \Rightarrow 13|13|012|01|013|23$

$\mathcal{K}_{13,2}(01|12|013|12|013|23, 4, 6) \Rightarrow 01|23|013|23|013|23, 03|12|013|23|013|23$ (Case 1).

$\mathcal{K}_{13,4}(01|12|013|12|013|23, 6) \Rightarrow 03|23|013|12|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|01|013|12|013|23$ and $(3124) \Rightarrow 12|12|013|01|013|23$

$\mathcal{K}_{13,3}(01|12|012|12|013|23, \infty, 2, 4, 6) \Rightarrow 01|12|023|12|013|23, 01|23|023|12|013|23, 01|02|123|23|013|23,$ $13|23|012|23|013|23$ (Case 1).

$\mathcal{K}_{13,2}(01|12|012|12|013|23, \infty, 4, 6) \Rightarrow 01|23|012|12|013|23, 01|23|012|23|013|23, 13|02|123|23|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 12|01|012|12|013|23$ and $(3124) \Rightarrow 12|12|012|01|013|23$

$\mathcal{K}_{03,2}(01|01|012|23|013|23, \infty, 3, 4, 6) \Rightarrow 01|13|012|23|013|23, 01|13|123|23|013|23, 01|03|012|12|013|23,$ $03|01|023|12|013|23$ (Case 1).

$\mathcal{K}_{03,3}(01|01|012|23|013|23, \infty, 4, 6) \Rightarrow 01|01|123|23|013|23, 01|01|023|12|013|23, 03|03|012|12|013|23$
(Case 1).
$\quad \mathcal{K}_{03,1}(01|01|012|23|013|23, \infty) \Rightarrow 13|01|012|23|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(1324) \Rightarrow 01|23|012|01|013|23$ and $(2314) \Rightarrow 23|01|012|01|013|23$

$\quad \mathcal{K}_{01,2}(03|03|023|12|013|23, 3, 4) \Rightarrow 03|13|123|12|013|23, 13|03|123|12|013|23$ (Case 1).
$\quad \mathcal{K}_{01,3}(03|03|023|12|013|23, 4) \Rightarrow 13|13|023|12|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(1342) \Rightarrow 01|12|012|01|013|23$ and $(2341) \Rightarrow 12|01|012|01|013|23$

$\quad \mathcal{K}_{12,1}(02|02|023|12|013|23, \infty, 2, 5) \Rightarrow 01|02|023|12|013|23, 01|01|023|12|013|23, 01|13|123|03|123|23$
(Case 1).
$\quad \mathcal{K}_{12,2}(02|02|023|12|013|23, \infty, 5) \Rightarrow 02|01|023|12|013|23, 13|01|123|03|123|23$ (Case 1).
$\quad \mathcal{K}_{12,5}(02|02|023|12|013|23, \infty) \Rightarrow 13|13|123|03|123|23$ (Case 1).

$\quad \mathcal{K}_{02,2}(03|03|012|13|013|23, 5, 6) \Rightarrow 03|23|012|13|123|23, 23|03|012|13|123|23$ (Case 1).
$\quad \mathcal{K}_{02,5}(03|03|012|13|013|23, 6) \Rightarrow 23|23|012|13|013|23$ (Case 1).

$\quad \mathcal{K}_{02,3}(01|03|013|13|013|23, \infty, 1, 2, 5, 6) \Rightarrow 01|03|123|13|013|23, 12|03|123|13|013|23, 01|23|123|13|013|23,$
$01|03|123|13|123|23, 12|23|013|13|123|23$ (Case 1).
$\quad \mathcal{K}_{02,2}(01|03|013|13|013|23, \infty, 6) \Rightarrow 01|23|013|13|013|23, 12|03|123|13|123|23$ (Case 1).
$\quad \mathcal{K}_{02,1}(01|03|013|13|013|23, \infty) \Rightarrow 12|03|013|13|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(2134) \Rightarrow 03|01|013|13|013|23$

$\quad \mathcal{K}_{12,3}(01|01|013|13|013|23, 1, 2, 4, 6) \Rightarrow 02|01|023|13|013|23, 01|02|023|13|013|23, 01|01|123|23|013|23,$
$12|12|013|23|123|23$ (Case 1).
$\quad \mathcal{K}_{12,6}(01|01|013|13|013|23, 1, 2, 4) \Rightarrow 01|13|123|23|123|23, 13|01|123|23|123|23, 12|12|123|03|123|23$
(Case 1).
$\quad$ Free by vertex permutation: $(1324) \Rightarrow 01|13|013|01|013|23$ and $(2314) \Rightarrow 13|01|013|01|013|23$

$\quad \mathcal{K}_{12,1}(01|01|012|13|013|23, \infty, 2, 6) \Rightarrow 02|01|012|13|013|23, 02|02|012|13|013|23, 01|13|013|23|123|23$
(Case 1).
$\quad \mathcal{K}_{12,2}(01|01|012|13|013|23, \infty, 6) \Rightarrow 01|02|012|13|013|23, 13|01|013|23|123|23$ (Case 1).
$\quad \mathcal{K}_{12,6}(01|01|012|13|013|23, \infty) \Rightarrow 13|13|013|23|123|23$ (Case 1).

$\quad \mathcal{K}_{13,2}(01|01|013|12|013|23, 4, 6) \Rightarrow 01|13|013|23|013|23, 13|01|013|23|013|23$ (Case 1).
$\quad \mathcal{K}_{13,4}(01|01|013|12|013|23, 6) \Rightarrow 03|03|013|12|013|23$ (Case 1).
$\quad$ Free by vertex permutation: $(1324) \Rightarrow 01|12|013|01|013|23$ and $(2314) \Rightarrow 12|01|013|01|013|23$

$\quad \mathcal{K}_{13,2}(01|01|012|12|013|23, \infty, 3, 4, 6) \Rightarrow 01|03|012|12|013|23, 01|03|023|12|013|23, 01|13|012|23|013|23,$
$13|01|123|23|013|23$ (Case 1).
$\quad \mathcal{K}_{13,3}(01|01|012|12|013|23, \infty, 4, 6) \Rightarrow 01|01|023|12|013|23, 01|01|123|23|013|23, 13|13|012|23|013|23$
(Case 1).
$\quad \mathcal{K}_{13,1}(01|01|012|12|013|23, \infty) \Rightarrow 03|01|012|12|013|23$ (Case 1).

$\quad \mathcal{K}_{13,2}(01|01|123|01|013|23, 4, 6) \Rightarrow 01|13|023|13|013|23, 13|01|023|13|013|23$ (Case 1).

$\mathcal{K}_{13,4}(01|01|123|01|013|23, 6) \Rightarrow 03|03|123|01|013|23$ (Case 1).

$\mathcal{K}_{12,3}(13|13|013|01|013|23, 2, 4, 6) \Rightarrow 03|23|123|01|013|23, 03|03|123|12|013|23, 23|23|012|13|123|23$
(Case 1).
$\mathcal{K}_{12,4}(13|13|013|01|013|23, 2, 6) \Rightarrow 03|23|013|12|013|23, 23|23|123|01|123|23$ (Case 1).
$\mathcal{K}_{12,2}(13|13|013|01|013|23, 6) \Rightarrow 23|02|123|13|123|23$ (Case 1).

$\mathcal{K}_{03,3}(02|12|012|01|013|23, 4, 6) \Rightarrow 02|12|123|13|013|23, 23|12|012|13|013|23$ (Case 1).
$\mathcal{K}_{03,4}(02|12|012|01|013|23, 6) \Rightarrow 23|12|123|01|013|23$ (Case 1).

$\mathcal{K}_{13,\infty}(01|01|123|13|123|23, 1, 2, 6) \Rightarrow 03|01|123|13|123|23, 01|03|123|13|123|23, 03|03|123|13|123|23$
(Case 1).

$\mathcal{K}_{23,\infty}(13|13|023|13|123|23, 1, 2, 4) \Rightarrow 12|13|023|13|123|23, 13|12|023|13|123|23, 12|12|023|13|123|23$
(Case 1).

$\mathcal{K}_{12,\infty}(12|12|013|13|123|23, 3, 4, 6) \Rightarrow 12|12|023|13|123|23, 12|12|013|23|123|23, 13|13|023|23|123|23$
(Case 1).

$\mathcal{K}_{02,\infty}(03|13|023|13|123|23, 1, 5, 6) \Rightarrow 23|13|023|13|123|23, 03|13|023|13|013|23, 23|13|023|13|013|23$
(Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|03|023|13|123|23$

$\mathcal{K}_{02,\infty}(01|13|023|13|123|23, 1, 5, 6) \Rightarrow 12|13|023|13|123|23, 01|13|023|13|013|23, 12|13|023|13|013|23$
(Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|01|023|13|123|23$ and $(3124) \Rightarrow 13|13|023|01|123|23$

$\mathcal{K}_{13,\infty}(02|12|012|13|123|23, 2, 3, 6) \Rightarrow 02|23|012|13|123|23, 02|12|023|13|123|23, 02|23|023|13|123|23$
(Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|02|012|13|123|23$

$\mathcal{K}_{01,\infty}(03|03|013|23|123|23, 1, 2, 5) \Rightarrow 13|03|013|23|123|23, 03|13|013|23|123|23, 13|13|013|23|123|23$
(Case 1).

$\mathcal{K}_{01,\infty}(02|03|013|23|123|23, 1, 2, 5) \Rightarrow 12|03|013|23|123|23, 02|13|013|23|123|23, 12|13|013|23|123|23$
(Case 1).
Free by vertex permutation: $(2134) \Rightarrow 03|02|013|23|123|23$

$\mathcal{K}_{01,\infty}(02|02|013|23|123|23, 1, 2, 5) \Rightarrow 12|02|013|23|123|23, 02|12|013|23|123|23, 12|12|013|23|123|23$
(Case 1).

$\mathcal{K}_{02,\infty}(02|02|013|13|123|23, 3, 5, 6) \Rightarrow 02|02|123|13|123|23, 02|02|013|13|013|23, 02|02|123|13|013|23$
(Case 1).

$\mathcal{K}_{13,\infty}(01|02|012|13|123|23, 1, 3, 6) \Rightarrow 03|02|012|13|123|23, 01|02|023|13|123|23, 03|02|023|13|123|23$
(Case 1).

Free by vertex permutation: $(2134) \Rightarrow 02|01|012|13|123|23$

$\mathcal{K}_{12,\infty}(03|13|123|01|123|23, 2, 4, 6) \Rightarrow 03|23|123|01|123|23, 02|12|123|03|123|23, 02|23|123|03|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|03|123|01|123|23$

$\mathcal{K}_{12,\infty}(01|03|123|01|123|23, 1, 4, 6) \Rightarrow 02|03|123|01|123|23, 01|02|123|03|123|23, 03|02|123|03|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 03|01|123|01|123|23$

$\mathcal{K}_{01,\infty}(01|23|023|03|123|23, 3, 4, 5) \Rightarrow 01|23|123|03|123|23, 01|23|023|13|123|23, 01|23|123|13|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|01|023|03|123|23$

$\mathcal{K}_{02,\infty}(02|13|023|03|123|23, 4, 5, 6) \Rightarrow 02|13|023|23|123|23, 12|03|123|13|013|23, 12|03|123|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|02|023|03|123|23$

$\mathcal{K}_{02,\infty}(02|13|012|03|123|23, 4, 5, 6) \Rightarrow 03|12|013|23|123|23, 12|03|012|13|013|23, 02|13|012|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|02|012|03|123|23$

$\mathcal{K}_{02,\infty}(02|13|023|01|123|23, 4, 5, 6) \Rightarrow 03|12|023|13|123|23, 12|03|123|01|013|23, 02|13|023|12|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|03|023|01|123|23$

$\mathcal{K}_{03,\infty}(03|12|013|01|123|23, 4, 5, 6) \Rightarrow 03|12|013|13|123|23, 02|13|012|01|013|23, 02|13|012|12|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|03|013|01|123|23$

$\mathcal{K}_{23,\infty}(01|12|123|12|013|23, 2, 4, 5) \Rightarrow 01|13|123|12|013|23, 01|12|123|13|013|23, 01|13|123|13|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|01|123|12|013|23$

$\mathcal{K}_{23,\infty}(01|02|123|12|013|23, 2, 4, 5) \Rightarrow 01|03|123|12|013|23, 01|02|123|13|013|23, 01|03|123|13|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 02|01|123|12|013|23$

$\mathcal{K}_{13,\infty}(01|01|123|13|013|23, 1, 2, 6) \Rightarrow 03|01|123|13|013|23, 01|03|123|13|013|23, 03|03|123|13|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(12|12|013|13|013|23, 1, 2, 4) \Rightarrow 02|12|013|13|013|23, 12|02|013|13|013|23, 02|02|013|13|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(12|12|012|13|013|23, 1, 2, 4) \Rightarrow 02|12|012|13|013|23, 12|02|012|13|013|23, 02|02|012|13|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(13|13|013|12|013|23, 1, 2, 4) \Rightarrow 03|13|013|12|013|23, 13|03|013|12|013|23, 03|03|013|12|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(13|13|012|12|013|23, 1, 2, 4) \Rightarrow 03|13|012|12|013|23, 13|03|012|12|013|23, 03|03|012|12|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(13|13|123|01|013|23, 1, 2, 3) \Rightarrow 03|13|123|01|013|23, 13|03|123|01|013|23, 03|03|123|01|013|23$ (Case 1).

$\mathcal{K}_{01,\infty}(12|12|123|01|013|23, 1, 2, 3) \Rightarrow 02|12|123|01|013|23, 12|02|123|01|013|23, 02|02|123|01|013|23$ (Case 1).

$\mathcal{K}_{03,\infty}(02|12|013|01|013|23, 1, 4, 6) \Rightarrow 23|12|013|01|013|23, 02|12|013|13|013|23, 23|12|013|13|013|23$ (Case 1).

Case 3. *B is one of* 13|23|123|13|123|23, 23|13|123|13|123|23, 03|23|013|23|123|23, 23|03|013|23|123|23, 03|13|013|13|123|23, 13|03|013|13|123|23, 03|13|012|13|123|23, 13|03|012|13|123|23, 01|01|013|13|123|23, 01|01|012|13|123|23, 01|01|123|01|123|23, 23|23|023|03|123|23, 13|23|023|03|123|23, 23|13|023|03|123|23, 12|23|023|03|123|23, 23|12|023|03|123|23, 13|13|013|01|123|23, 13|13|023|03|123|23, 23|23|013|03|123|23, 23|23|012|03|123|23, 13|13|013|03|123|23, 12|12|013|03|123|23, 13|13|012|03|123|23, 12|12|012|03|123|23, 01|13|012|01|013|23, 13|01|012|01|013|23, 23|23|023|01|123|23, 12|12|013|01|123|23, 03|23|012|03|123|23, 23|03|012|03|123|23, 02|23|012|03|123|23, 23|02|012|03|123|23, 02|12|013|03|123|23, 12|02|013|03|123|23, 01|12|013|03|123|23, 12|01|013|03|123|23, 03|23|023|01|123|23, 23|03|023|01|123|23, 03|03|023|03|123|23, 03|03|013|03|123|23, 02|02|013|03|123|23, 03|03|012|03|123|23, 02|02|012|03|123|23, 01|02|013|03|123|23, 02|01|013|03|123|23, 01|01|013|03|123|23, 01|01|012|03|123|23, 03|03|023|01|123|23, 23|03|023|12|013|23, 03|23|023|12|013|23, 02|03|023|01|123|23, 01|01|023|01|123|23, 01|01|013|01|123|23, 23|23|123|23|013|23, 12|12|123|12|013|23, 03|23|123|23|013|23, 23|03|123|23|013|23, 02|23|123|23|013|23, 23|02|123|23|013|23, 12|12|012|12|013|23, 02|03|123|23|013|23, 03|02|123|23|013|23, 13|12|012|12|013|23, 12|13|012|12|013|23, 13|23|013|12|013|23, 13|12|013|12|013|23, 23|13|013|12|013|23, 12|13|013|12|013|23, 12|23|013|12|013|23, 23|12|013|12|013|23, 12|23|012|12|013|23, 23|12|012|12|013|23, 12|12|013|12|013|23, 01|12|013|23|013|23, 12|01|013|23|013|23, 01|12|012|23|013|23, 12|01|012|23|013|23, 03|13|012|13|013|23, 13|03|012|13|013|23, 03|12|012|12|013|23, 12|03|012|12|013|23, 02|03|023|12|013|23, 03|02|023|12|013|23, 01|03|012|13|013|23, 03|01|012|13|013|23, 01|02|013|12|013|23, 02|01|013|12|013|23, 03|13|013|01|013|23, 03|13|012|01|013|23, 01|01|013|01|013|23 *or* 01|01|012|01|013|23.

$\mathcal{K}_{03,4}(13|23|123|13|123|23, 2, 3, 5, 6) \Rightarrow 12|03|123|01|123|23, 12|23|013|01|123|23, 12|23|123|01|013|23, 01|03|013|12|013|23$ (Case 1 and 2).
$\mathcal{K}_{03,6}(13|23|123|13|123|23, 2, 3, 5) \Rightarrow 01|23|013|01|013|23, 01|03|123|01|013|23, 01|03|013|01|123|23$ (Case 1 and 2).
Free by vertex permutation: $(1243) \Rightarrow 23|13|123|13|123|23$

$\mathcal{K}_{13,2}(03|23|013|23|123|23, 4, 6) \Rightarrow 02|13|012|13|123|23, 01|23|012|13|123|23$ (Case 1 and 2).

$\mathcal{K}_{13,4}(03|23|013|23|123|23, 6) \Rightarrow 01|12|013|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|03|013|23|123|23$

$\mathcal{K}_{23,2}(03|13|013|13|123|23, 3, 4) \Rightarrow 03|12|012|13|123|23, 02|13|012|13|123|23$ (Case 1).
$\mathcal{K}_{23,3}(03|13|013|13|123|23, 4) \Rightarrow 02|12|013|13|123|23$ (Case 2).
Free by vertex permutation: $(2134) \Rightarrow 13|03|013|13|123|23$

$\mathcal{K}_{02,2}(01|01|012|13|123|23, 5, 6) \Rightarrow 01|12|012|13|013|23, 12|01|012|13|013|23$ (Case 1).
$\mathcal{K}_{02,5}(01|01|012|13|123|23, 6) \Rightarrow 12|12|012|13|123|23$ (Case 2).

$\mathcal{K}_{12,2}(01|01|123|01|123|23, 4, 6) \Rightarrow 01|03|123|03|123|23, 03|01|123|03|123|23$ (Case 1).
$\mathcal{K}_{12,4}(01|01|123|01|123|23, 6) \Rightarrow 03|03|123|01|123|23$ (Case 2).

$\mathcal{K}_{03,2}(13|23|023|03|123|23, 5, 6) \Rightarrow 02|13|123|12|013|23, 01|23|123|12|013|23$ (Case 1).
$\mathcal{K}_{03,5}(13|23|023|03|123|23, 6) \Rightarrow 01|02|023|03|123|23$ (Case 2).
Free by vertex permutation: $(2134) \Rightarrow 23|13|023|03|123|23$

$\mathcal{K}_{02,4}(23|23|013|03|123|23, 3, 5, 6) \Rightarrow 23|23|123|23|123|23, 23|23|013|23|013|23, 13|13|023|13|013|23$
(Case 2).
$\mathcal{K}_{02,5}(23|23|013|03|123|23, 3, 6) \Rightarrow 23|23|023|13|013|23, 03|03|123|23|123|23$ (Case 1 and
2).
$\mathcal{K}_{02,3}(23|23|013|03|123|23, 6) \Rightarrow 13|13|013|23|013|23$ (Case 1).

$\mathcal{K}_{13,2}(23|23|012|03|123|23, \infty, 4, 6) \Rightarrow 23|12|012|03|123|23, 23|13|013|01|123|23, 13|23|023|01|123|23$
(Case 2).
$\mathcal{K}_{13,4}(23|23|012|03|123|23, \infty, 6) \Rightarrow 23|23|013|01|123|23, 12|12|023|03|123|23$ (Case 2).
$\mathcal{K}_{13,1}(23|23|012|03|123|23, \infty) \Rightarrow 12|23|012|03|123|23$ (Case 2).
$\mathcal{K}_{13,6}(23|23|012|03|123|23, \infty) \Rightarrow 13|13|023|01|123|23$ (Case 2).

$\mathcal{K}_{02,4}(13|13|013|03|123|23, 5, 6) \Rightarrow 13|13|013|23|013|23, 03|03|023|13|013|23$ (Case 1).
$\mathcal{K}_{02,5}(13|13|013|03|123|23, 6) \Rightarrow 13|13|123|23|123|23$ (Case 2).

$\mathcal{K}_{02,4}(12|12|013|03|123|23, 3, 5, 6) \Rightarrow 13|13|123|23|123|23, 12|12|013|23|013|23, 01|01|023|13|013|23$
(Case 1 and 2).
$\mathcal{K}_{02,5}(12|12|013|03|123|23, 3, 6) \Rightarrow 02|02|023|13|013|23, 01|01|123|23|123|23$ (Case 1).
$\mathcal{K}_{02,3}(12|12|013|03|123|23, 6) \Rightarrow 01|01|013|23|013|23$ (Case 2).

$\mathcal{K}_{02,4}(23|23|023|01|123|23, \infty, 5, 6) \Rightarrow 23|23|023|13|123|23, 23|23|023|12|013|23, 13|13|123|01|013|23$
(Case 1 and 2).
$\mathcal{K}_{02,5}(23|23|023|01|123|23, \infty, 6) \Rightarrow 23|23|123|01|013|23, 02|02|023|13|123|23$ (Case 1 and
2).
$\mathcal{K}_{02,6}(23|23|023|01|123|23, \infty) \Rightarrow 03|03|023|12|013|23$ (Case 2).

$\mathcal{K}_{02,4}(03|03|013|03|123|23, 3, 5, 6) \Rightarrow 03|03|123|23|123|23, 13|13|013|23|013|23, 23|23|023|13|013|23$
(Case 1 and 2).

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$\mathcal{K}_{02,5}(03|03|013|03|123|23, 3, 6) \Rightarrow 13|13|023|13|013|23, 23|23|123|23|123|23$ (Case 2).
$\mathcal{K}_{02,3}(03|03|013|03|123|23, 6) \Rightarrow 23|23|013|23|013|23$ (Case 2).

$\mathcal{K}_{02,4}(02|02|013|03|123|23, 5, 6) \Rightarrow 12|12|013|23|013|23, 12|12|023|13|013|23$ (Case 1 and 2).

$\mathcal{K}_{02,5}(02|02|013|03|123|23, 6) \Rightarrow 03|03|123|23|123|23$ (Case 1).

$\mathcal{K}_{02,4}(03|03|012|03|123|23, \infty, 5, 6) \Rightarrow 02|02|013|23|123|23, 13|13|012|23|013|23, 23|23|012|13|013|23$ (Case 1 and 2).

$\mathcal{K}_{02,5}(03|03|012|03|123|23, \infty, 6) \Rightarrow 13|13|012|13|013|23, 23|23|013|23|123|23$ (Case 2).

$\mathcal{K}_{02,6}(03|03|012|03|123|23, \infty) \Rightarrow 23|23|012|23|013|23$ (Case 2).

$\mathcal{K}_{02,4}(01|01|013|03|123|23, 3, 5, 6) \Rightarrow 01|01|123|23|123|23, 01|01|013|23|013|23, 02|02|023|13|013|23$ (Case 1 and 2).

$\mathcal{K}_{02,5}(01|01|013|03|123|23, 3, 6) \Rightarrow 01|01|023|13|013|23, 13|13|123|23|123|23$ (Case 1 and 2).

$\mathcal{K}_{02,3}(01|01|013|03|123|23, 6) \Rightarrow 12|12|013|23|013|23$ (Case 2).

$\mathcal{K}_{01,2}(02|03|023|01|123|23, 3, 5) \Rightarrow 02|13|123|01|123|23, 12|03|123|01|123|23$ (Case 1).

$\mathcal{K}_{01,3}(02|03|023|01|123|23, 5) \Rightarrow 12|13|023|01|123|23$ (Case 2).

$\mathcal{K}_{13,2}(01|01|013|01|123|23, 4, 6) \Rightarrow 01|03|013|03|123|23, 03|01|013|03|123|23$ (Case 2).

$\mathcal{K}_{13,4}(01|01|013|01|123|23, 6) \Rightarrow 03|03|013|01|123|23$ (Case 2).

$\mathcal{K}_{13,2}(23|23|123|23|013|23, 4, 6) \Rightarrow 23|12|123|12|013|23, 12|23|123|12|013|23$ (Case 2).

$\mathcal{K}_{13,4}(23|23|123|23|013|23, 6) \Rightarrow 12|12|123|23|013|23$ (Case 2).

$\mathcal{K}_{01,2}(12|12|123|12|013|23, 3, 4) \Rightarrow 12|02|023|12|013|23, 02|12|023|12|013|23$ (Case 1).

$\mathcal{K}_{01,3}(12|12|123|12|013|23, 4) \Rightarrow 02|02|123|12|013|23$ (Case 2).

$\mathcal{K}_{13,2}(03|23|123|23|013|23, 4, 6) \Rightarrow 03|12|123|12|013|23, 01|23|123|12|013|23$ (Case 1 and 2).

$\mathcal{K}_{13,4}(03|23|123|23|013|23, 6) \Rightarrow 01|12|123|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 23|03|123|23|013|23$

$\mathcal{K}_{02,4}(12|23|013|12|013|23, 2, 3, 5, 6) \Rightarrow 02|13|013|01|013|23, 12|23|123|01|013|23, 12|23|013|01|123|23, 01|02|123|13|123|23$ (Case 1 and 2).

$\mathcal{K}_{02,6}(12|23|013|12|013|23, 2, 3, 5) \Rightarrow 01|23|123|01|123|23, 01|03|013|01|123|23, 01|03|123|01|013|23$ (Case 1 and 2).
Free by vertex permutation: $(1243) \Rightarrow 23|12|013|12|013|23$

$\mathcal{K}_{13,2}(01|12|013|23|013|23, 4, 6) \Rightarrow 01|23|013|12|013|23, 03|12|013|12|013|23$ (Case 1 and 2).

$\mathcal{K}_{13,4}(01|12|013|23|013|23, 6) \Rightarrow 13|23|013|23|013|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 12|01|013|23|013|23$

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$\mathcal{K}_{03,3}(01|12|012|23|013|23, 4, 6) \Rightarrow 01|02|023|12|013|23, 03|02|012|12|013|23$ (Case 1).

$\mathcal{K}_{03,4}(01|12|012|23|013|23, 6) \Rightarrow 13|12|123|23|013|23$ (Case 2).

Free by vertex permutation: $(2134) \Rightarrow 12|01|012|23|013|23$

$\mathcal{K}_{01,2}(02|03|023|12|013|23, 3, 4) \Rightarrow 02|13|123|12|013|23, 12|03|123|12|013|23$ (Case 1 and 2).

$\mathcal{K}_{01,3}(02|03|023|12|013|23, 4) \Rightarrow 12|13|023|12|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|02|023|12|013|23$

$\mathcal{K}_{02,2}(01|03|012|13|013|23, 5, 6) \Rightarrow 01|23|012|13|123|23, 12|03|012|13|123|23$ (Case 1 and 2).

$\mathcal{K}_{02,5}(01|03|012|13|013|23, 6) \Rightarrow 12|23|012|13|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 03|01|012|13|013|23$

$\mathcal{K}_{23,3}(01|02|013|12|013|23, 4, 5) \Rightarrow 01|02|012|13|013|23, 01|03|013|13|013|23$ (Case 1 and 2).

$\mathcal{K}_{23,4}(01|02|013|12|013|23, 5) \Rightarrow 01|03|012|12|013|23$ (Case 1).

Free by vertex permutation: $(2134) \Rightarrow 02|01|013|12|013|23$

$\mathcal{K}_{23,2}(03|13|012|01|013|23, 3, 5) \Rightarrow 03|12|013|01|013|23, 02|13|013|01|013|23$ (Case 1).

$\mathcal{K}_{23,3}(03|13|012|01|013|23, 5) \Rightarrow 02|12|012|01|013|23$ (Case 2).

$\mathcal{K}_{03,2}(01|01|013|01|013|23, 4, 6) \Rightarrow 01|13|013|13|013|23, 13|01|013|13|013|23$ (Case 2).

$\mathcal{K}_{03,4}(01|01|013|01|013|23, 6) \Rightarrow 13|13|013|01|013|23$ (Case 2).

$\mathcal{K}_{02,2}(01|01|012|01|013|23, \infty, 1, 4, 6) \Rightarrow 01|12|012|01|013|23, 12|12|012|01|013|23, 01|12|012|12|013|23, 13|01|013|13|123|23$ (Case 2).

$\mathcal{K}_{02,1}(01|01|012|01|013|23, \infty) \Rightarrow 12|01|012|01|013|23$ (Case 2).

$\mathcal{K}_{02,4}(01|01|012|01|013|23, \infty) \Rightarrow 01|01|012|12|013|23$ (Case 2).

$\mathcal{K}_{02,6}(01|01|012|01|013|23, \infty) \Rightarrow 13|13|013|13|123|23$ (Case 2).

$\mathcal{K}_{12,\infty}(03|13|012|13|123|23, 2, 4, 6) \Rightarrow 03|23|012|13|123|23, 02|12|013|23|123|23, 02|23|013|23|123|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 13|03|012|13|123|23$

$\mathcal{K}_{13,\infty}(01|01|013|13|123|23, 1, 2, 6) \Rightarrow 03|01|013|13|123|23, 01|03|013|13|123|23, 03|03|013|13|123|23$ (Case 2).

$\mathcal{K}_{01,\infty}(23|23|023|03|123|23, 3, 4, 5) \Rightarrow 23|23|123|03|123|23, 23|23|023|13|123|23, 23|23|123|13|123|23$ (Case 1 and 2).

$\mathcal{K}_{03,\infty}(12|23|023|03|123|23, 2, 5, 6) \Rightarrow 12|02|023|03|123|23, 03|23|123|12|013|23, 03|13|123|12|013|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 23|12|023|03|123|23$ and $(4132) \Rightarrow 13|13|013|01|123|23$

$\mathcal{K}_{02,\infty}(13|13|023|03|123|23, 4, 5, 6) \Rightarrow 13|13|023|23|123|23, 03|03|123|13|013|23, 03|03|123|23|013|23$ (Case 1 and 2).

$\mathcal{K}_{02,\infty}(13|13|012|03|123|23, 4, 5, 6) \Rightarrow 12|12|013|23|123|23, 03|03|012|13|013|23, 13|13|012|23|013|23$ (Case 1 and 2).

$\mathcal{K}_{03,\infty}(12|12|012|03|123|23, 3, 5, 6) \Rightarrow 12|12|123|03|123|23, 03|03|013|12|013|23, 03|03|023|12|013|23$ (Case 1 and 2).
Free by vertex permutation: $(1342) \Rightarrow 01|13|012|01|013|23$ and $(2341) \Rightarrow 13|01|012|01|013|23$

$\mathcal{K}_{01,\infty}(12|12|013|01|123|23, 1, 2, 5) \Rightarrow 02|12|013|01|123|23, 12|02|013|01|123|23, 02|02|013|01|123|23$ (Case 2).

$\mathcal{K}_{01,\infty}(03|23|012|03|123|23, 1, 4, 5) \Rightarrow 13|23|012|03|123|23, 03|23|012|13|123|23, 13|23|012|13|123|23$ (Case 1 and 2).
Free by vertex permutation: $(2134) \Rightarrow 23|03|012|03|123|23$

$\mathcal{K}_{01,\infty}(02|23|012|03|123|23, 1, 4, 5) \Rightarrow 12|23|012|03|123|23, 02|23|012|13|123|23, 12|23|012|13|123|23$ (Case 1 and 2).
Free by vertex permutation: $(2134) \Rightarrow 23|02|012|03|123|23$

$\mathcal{K}_{03,\infty}(02|12|013|03|123|23, 1, 5, 6) \Rightarrow 23|12|013|03|123|23, 13|03|012|12|013|23, 23|03|012|12|013|23$ (Case 1 and 2).
Free by vertex permutation: $(2134) \Rightarrow 12|02|013|03|123|23$

$\mathcal{K}_{03,\infty}(01|12|013|03|123|23, 1, 5, 6) \Rightarrow 13|12|013|03|123|23, 01|03|012|12|013|23, 02|03|012|12|013|23$ (Case 1 and 2).
Free by vertex permutation: $(2134) \Rightarrow 12|01|013|03|123|23$

$\mathcal{K}_{01,\infty}(03|23|023|01|123|23, 1, 3, 5) \Rightarrow 13|23|023|01|123|23, 03|23|123|01|123|23, 13|23|123|01|123|23$ (Case 1 and 2).
Free by vertex permutation: $(2134) \Rightarrow 23|03|023|01|123|23$

$\mathcal{K}_{23,\infty}(03|03|023|03|123|23, 1, 2, 4) \Rightarrow 02|03|023|03|123|23, 03|02|023|03|123|23, 02|02|023|03|123|23$ (Case 2).

$\mathcal{K}_{02,\infty}(02|02|012|03|123|23, 4, 5, 6) \Rightarrow 03|03|013|23|123|23, 12|12|012|13|013|23, 12|12|012|23|013|23$ (Case 2).

$\mathcal{K}_{13,\infty}(01|02|013|03|123|23, 1, 4, 6) \Rightarrow 03|02|013|03|123|23, 01|02|013|01|123|23, 03|02|013|01|123|23$ (Case 2).
Free by vertex permutation: $(2134) \Rightarrow 02|01|013|03|123|23$

$\mathcal{K}_{02,\infty}(01|01|012|03|123|23, 1, 2, 4, 5, 6) \Rightarrow 12|01|012|03|123|23, 01|12|012|03|123|23, 01|01|013|23|123|23, 01|01|012|13|013|23, 12|12|012|23|013|23$ (Case 2).

$\mathcal{K}_{03,\infty}(03|03|023|01|123|23, 4, 5, 6) \Rightarrow 03|03|023|13|123|23, 12|12|123|01|013|23, 02|02|023|12|013|23$ (Case 2).

Free by vertex permutation: $(1432) \Rightarrow 23|03|023|12|013|23$ and $(2431) \Rightarrow 03|23|023|12|013|23$

$\mathcal{K}_{02,\infty}(01|01|023|01|123|23, 1, 2, 4, 5, 6) \Rightarrow 13|01|023|01|123|23, 01|13|023|01|123|23, 01|01|023|13|123|23, 01|01|123|01|013|23, 12|12|023|12|013|23$ (Case 2).

$\mathcal{K}_{13,\infty}(02|23|123|23|013|23, 2, 4, 6) \Rightarrow 02|12|123|23|013|23, 02|23|123|12|013|23, 02|12|123|12|013|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 23|02|123|23|013|23$ and $(4123) \Rightarrow 12|12|012|12|013|23$

$\mathcal{K}_{01,\infty}(02|03|123|23|013|23, 1, 2, 3) \Rightarrow 12|03|123|23|013|23, 02|13|123|23|013|23, 12|13|123|23|013|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 03|02|123|23|013|23$, $(4123) \Rightarrow 13|12|012|12|013|23$ and $(4213) \Rightarrow 12|13|012|12|013|23$

$\mathcal{K}_{02,\infty}(13|23|013|12|013|23, 2, 3, 4, 5, 6) \Rightarrow 13|03|013|12|013|23, 13|23|123|12|013|23, 13|23|013|01|013|23, 12|23|012|13|123|23, 13|03|123|01|123|23$ (Case 1 and 2).

Free by vertex permutation: $(1243) \Rightarrow 13|12|013|12|013|23$, $(2134) \Rightarrow 23|13|013|12|013|23$ and $(2143) \Rightarrow 12|13|013|12|013|23$

$\mathcal{K}_{03,\infty}(12|23|012|12|013|23, 2, 3, 6) \Rightarrow 12|02|012|12|013|23, 12|23|123|12|013|23, 12|02|123|12|013|23$ (Case 2).

Free by vertex permutation: $(2134) \Rightarrow 23|12|012|12|013|23$

$\mathcal{K}_{01,\infty}(12|12|013|12|013|23, 1, 2, 4) \Rightarrow 02|12|013|12|013|23, 12|02|013|12|013|23, 02|02|013|12|013|23$ (Case 2).

$\mathcal{K}_{13,\infty}(03|13|012|13|013|23, 1, 3, 6) \Rightarrow 01|13|012|13|013|23, 03|13|023|13|013|23, 01|13|023|13|013|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 13|03|012|13|013|23$

$\mathcal{K}_{13,\infty}(03|12|012|12|013|23, 1, 2, 3, 4, 6) \Rightarrow 01|12|012|12|013|23, 03|23|012|12|013|23, 03|12|023|12|013|23, 03|12|012|23|013|23, 01|23|123|23|013|23$ (Case 1 and 2).

Free by vertex permutation: $(2134) \Rightarrow 12|03|012|12|013|23$

$\mathcal{K}_{03,\infty}(03|13|013|01|013|23, 2, 4, 6) \Rightarrow 13|01|013|01|013|23, 03|13|013|13|013|23, 03|01|013|13|013|23$ (Case 2).

Case 4. *B is one of* 12|13|012|03|123|23, 13|12|012|03|123|23, 02|03|012|03|123|23, 03|02|012|03|123|23, 13|23|012|12|013|23, 23|13|012|12|013|23, 01|02|012|12|013|23 *or* 02|01|012|12|013|23.

$\mathcal{K}_{02,4}(12|13|012|03|123|23, 5, 6) \Rightarrow 12|13|012|23|013|23, 01|03|012|13|013|23$ (Case 1 and 3).

$\mathcal{K}_{02,5}(12|13|012|03|123|23, 6) \Rightarrow 01|12|013|23|123|23$ (Case 1).
Free by vertex permutation: $(2134) \Rightarrow 13|12|012|03|123|23$

$\mathcal{K}_{02,4}(02|03|012|03|123|23, 5, 6) \Rightarrow 12|13|012|23|013|23, 12|23|012|13|013|23$ (Case 1).
$\mathcal{K}_{02,5}(02|03|012|03|123|23, 6) \Rightarrow 03|23|013|23|123|23$ (Case 3).
Free by vertex permutation: $(2134) \Rightarrow 03|02|012|03|123|23$

$\mathcal{K}_{02,4}(13|23|012|12|013|23, 5, 6) \Rightarrow 12|23|013|01|123|23, 12|02|013|13|123|23$ (Case 2).
$\mathcal{K}_{02,5}(13|23|012|12|013|23, 6) \Rightarrow 03|13|012|01|013|23$ (Case 3).
Free by vertex permutation: $(2134) \Rightarrow 23|13|012|12|013|23$

$\mathcal{K}_{02,4}(01|02|012|12|013|23, 5, 6) \Rightarrow 01|03|013|01|123|23, 13|03|013|13|123|23$ (Case 2 and 3).
$\mathcal{K}_{02,5}(01|02|012|12|013|23, 6) \Rightarrow 02|12|012|01|013|23$ (Case 2).
Free by vertex permutation: $(2134) \Rightarrow 02|01|012|12|013|23$

$\square$