

```

PassReducible@k_MD := PassReducible@k =
Block[ {1, n = Length@k, p = List@@Build@k
// (#T ∪ (Abs@Reverse@#
Sign /@List@@Build[MD@@ (-List@@
k) ])T][2] &, v = True},
Do[If[ (Sign@p[[Mod[i + j (Range@o - 1),
2 n, 1]]] ∪ {})2 == {1},
(*There is a (o, o-1)-pass.*)
If[o == 3, Goto@1];
Do[If[Total@Mod[e, 2] == 2,
If[ (Mod[e, 2 n, e[[1]]
// Partition[#, 2] &
// Range@@@# &) ][;;, 2;; -2]]
// Mod[#, 2 n, 1] &
// Union@@# &
// # == Abs@p[[#] ∪ {} &, Goto@1]]],
{e, Select[Table[SortBy[{c, i} ∪ Abs@
p[[Mod[{i, i + j}, 2 n, 1]]],
Mod[#, 2 n, i] &], {c, 2 n}],
Length@# == 4 &]T[[
If[j == 1, {2, 3, 4, 1}, ;]]T]]],
{o, {3, 2}}, {i, 2 n}, {j, {1, -1}}];
v = False;
Label@1;
v];

```