ValidColouring[*k*, *e*, *s*, *g*] returns True if the knot *k*, given in modified DT form, can be coloured if it has edge generators given by the list *e*, crossing mappings given by the list *s*, and generator values given by the list *g* and False otherwise.

```
ValidColouring[k_MDT, e_List, s_List, g_List] :=
  ValidColouring[k, e, s, g] =
   Block[{v, w = List @@@ List @@ ToPD@k, n = Length@k},
    v = Array[0 &, 2 n]; v[[e]] = g;
    And @@ Table[PermutationConjugation[v[[c[[1]]]],
        SortBy[w, Length[c ⋂ #] &][[-1]]
         // If[#[[3]] == Mod[#[[5]] + 1, 2 n, 1],
           v[[c[[2]]]],
           InversePermutation@v[[c[[2]]]]] &]
       // If[v[[c[[3]]]] === 0, v[[c[[3]]]] = #;
         True, v[[c[[3]]]] == #] &,
      {c, s}]];
```