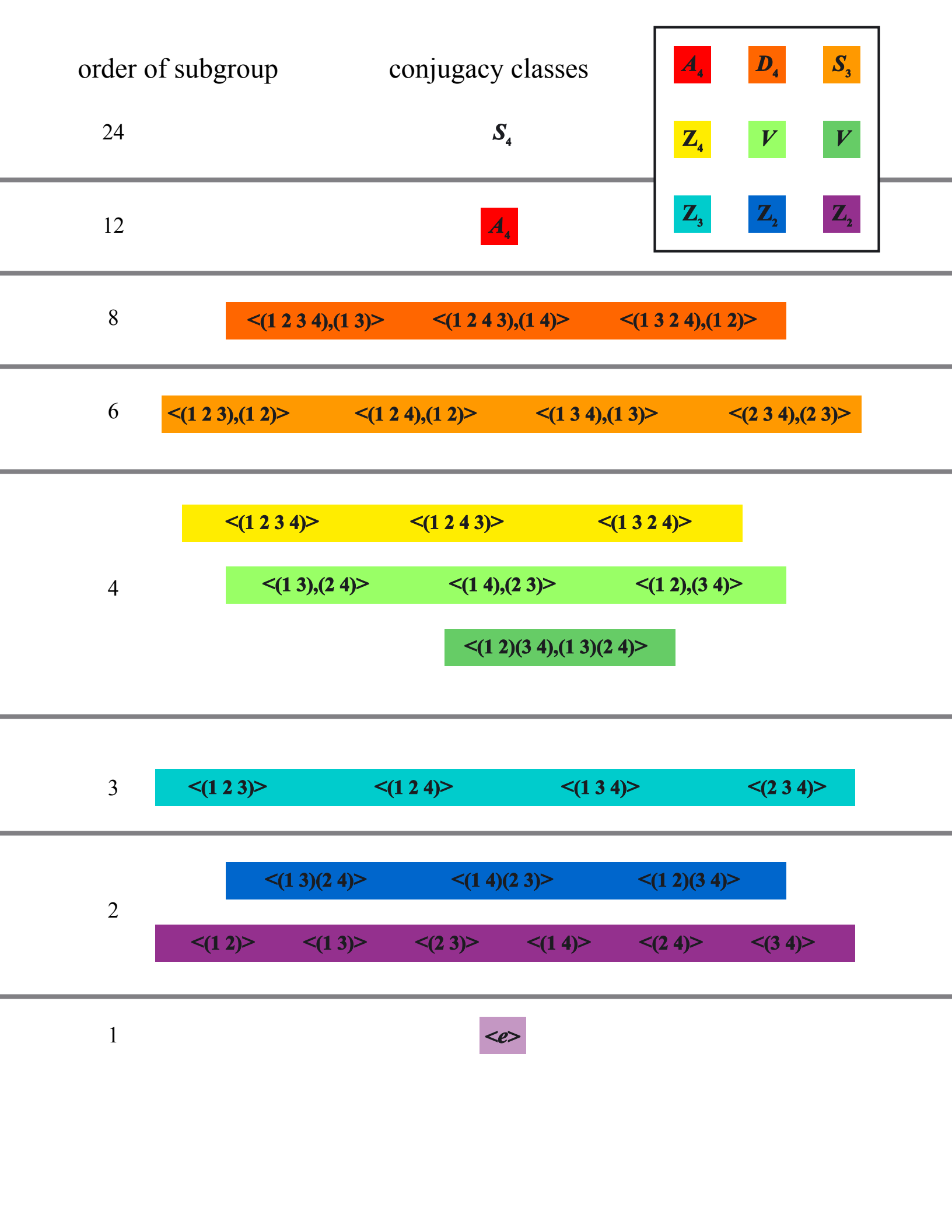
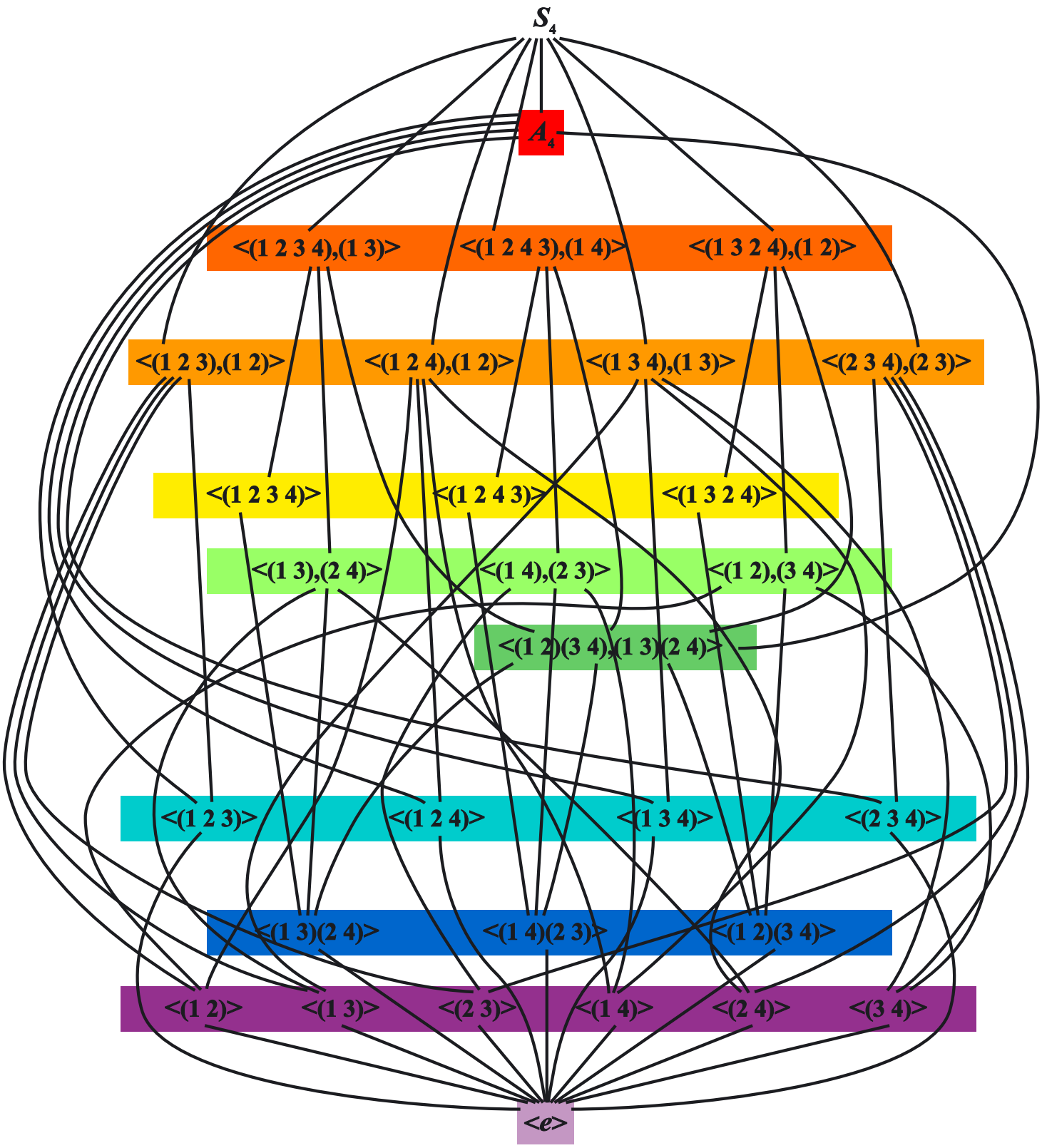
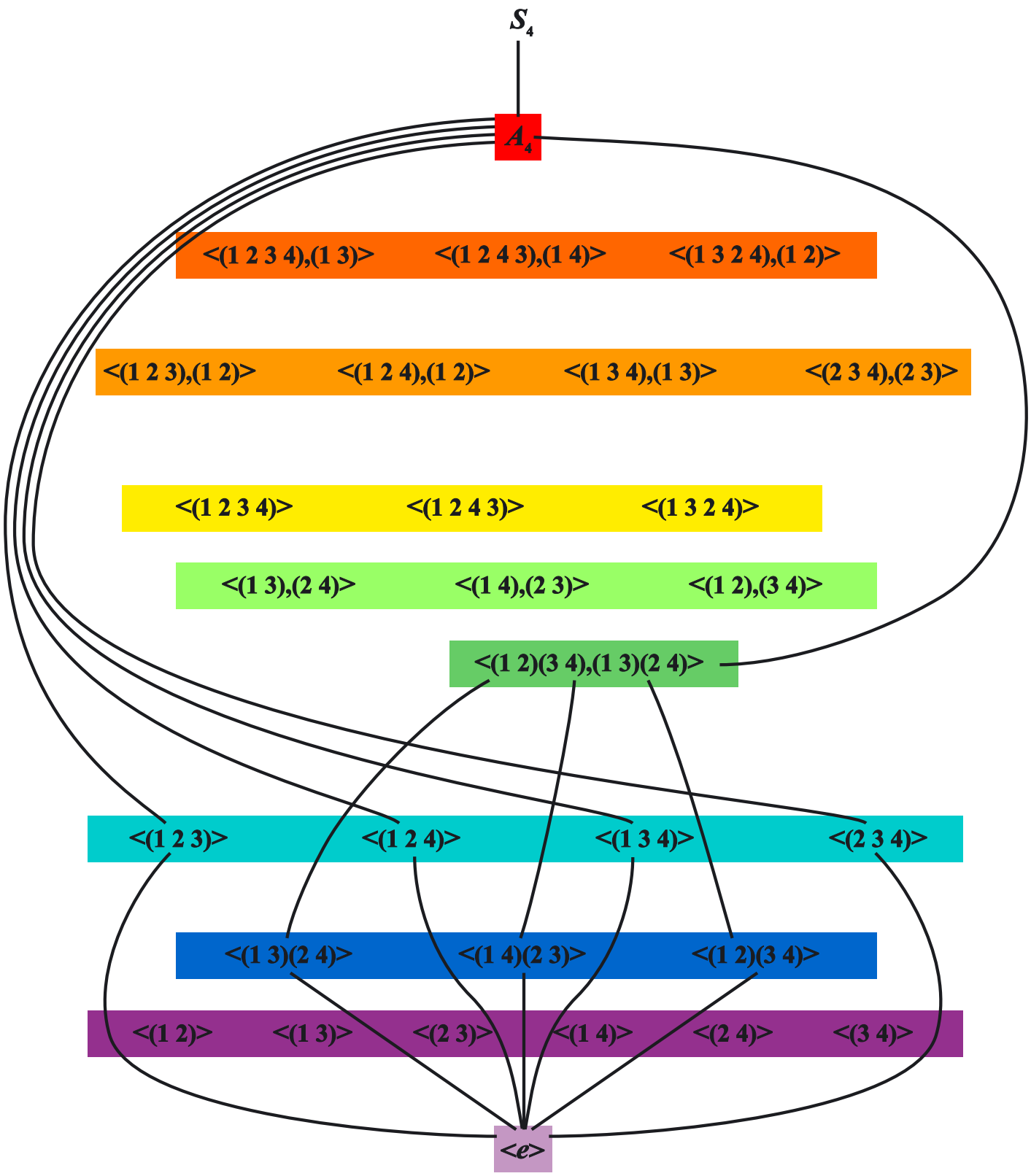
The Subgroups of S_4


order of subgroup
conjugacy classes
A_4 D_4 S_3
Z_4 V V
Z_3 Z_2 Z_2
24
S_4
12
A_4
8
<(1 2 3 4),(1 3)>
<(1 2 4 3),(1 4)>
<(1 3 2 4),(1 2)>
6
<(1 2 3),(1 2)>
<(1 2 4),(1 2)>
<(1 3 4),(1 3)>
<(2 3 4),(2 3)>
4
<(1 2 3 4)>
<(1 2 4 3)>
<(1 3 2 4)>
<(1 3),(2 4)>
<(1 4),(2 3)>
<(1 2),(3 4)>
<(1 2)(3 4),(1 3)(2 4)>
3
<(1 2 3)>
<(1 2 4)>
<(1 3 4)>
<(2 3 4)>
2
<(1 3)(2 4)>
<(1 4)(2 3)>
<(1 2)(3 4)>
<(1 2)>
<(1 3)>
<(2 3)>
<(1 4)>
<(2 4)>
<(3 4)>
1
<e>

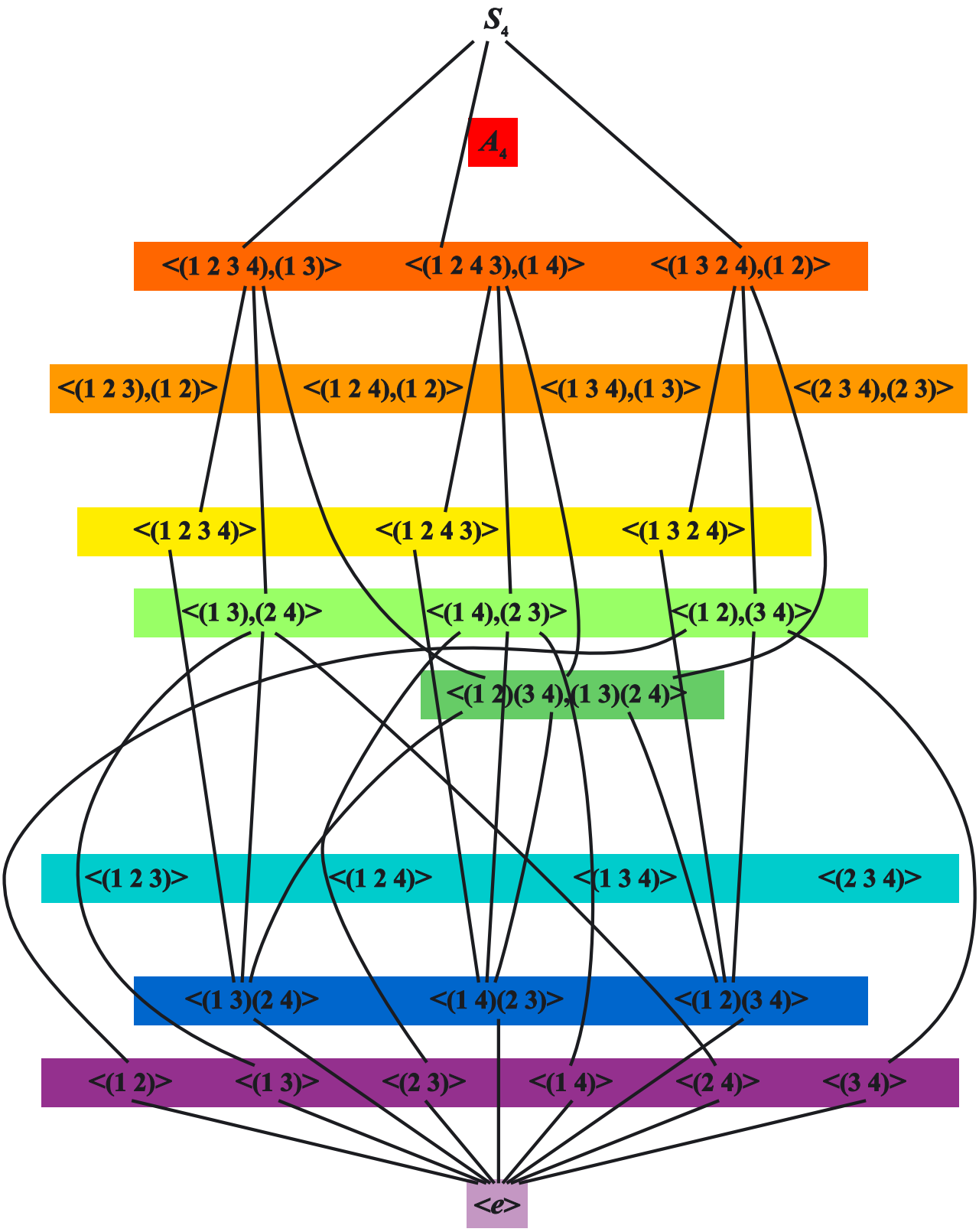
Full Subgroup Diagram



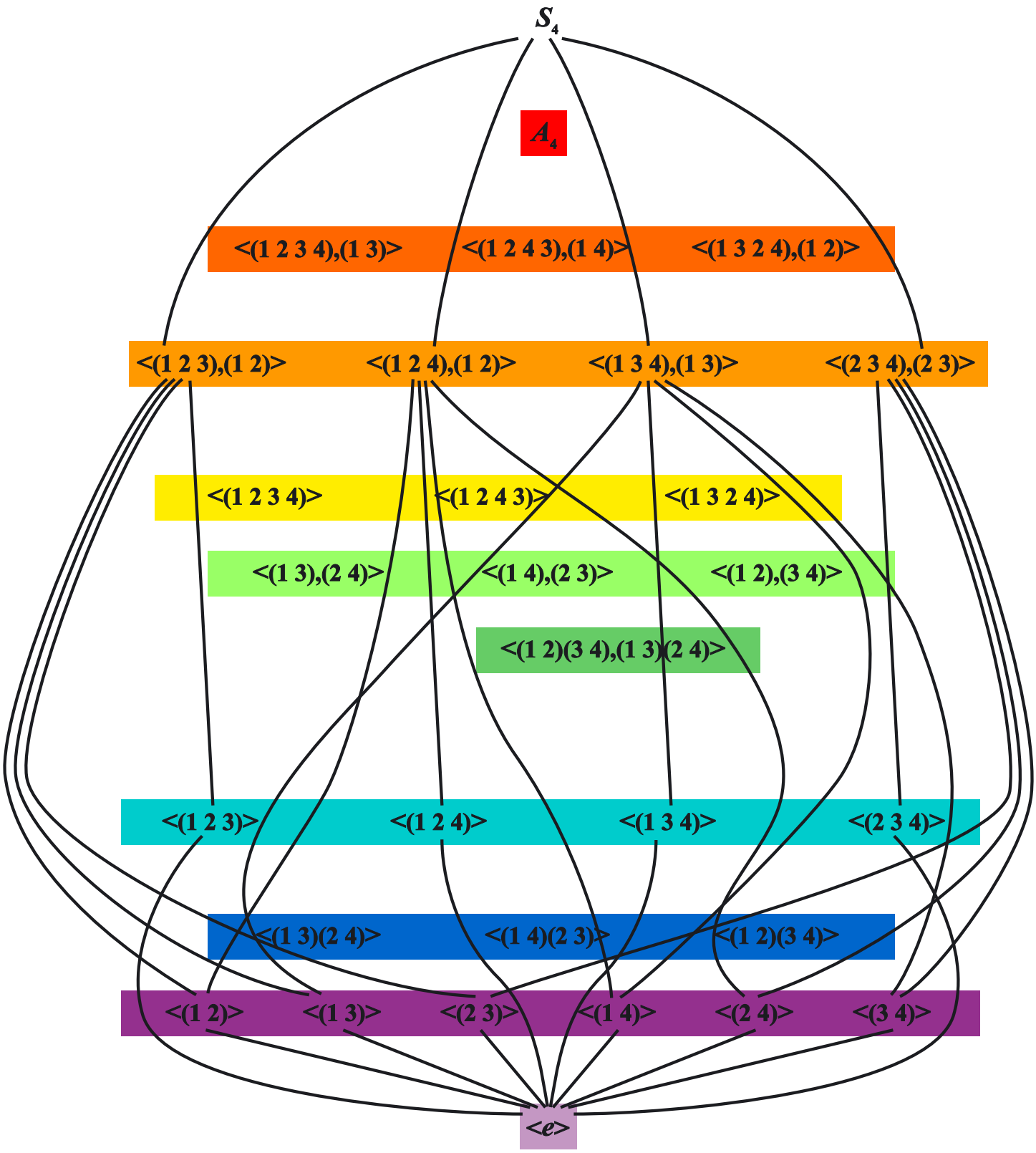
Links Through A_4



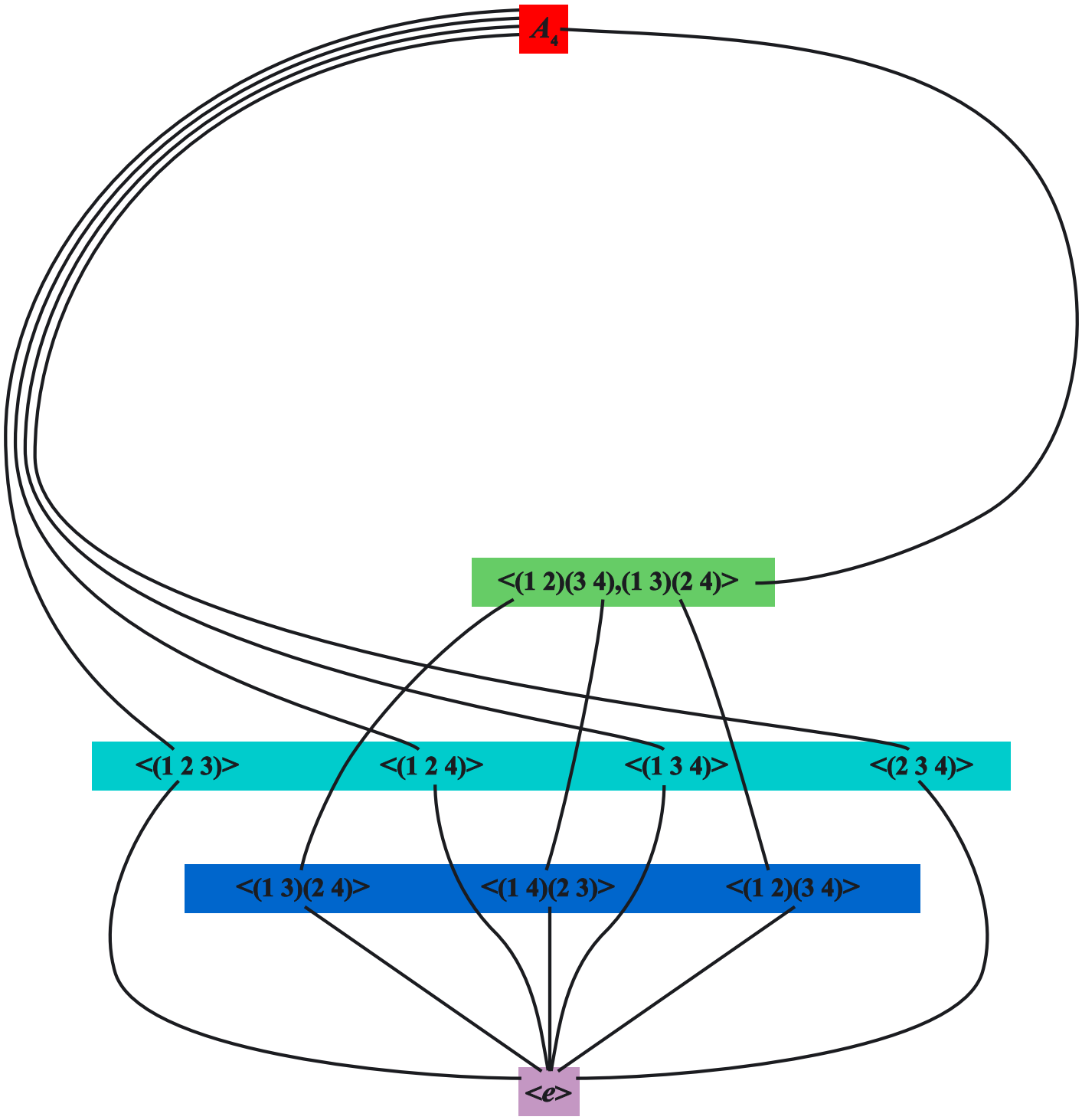
Links Through D_4



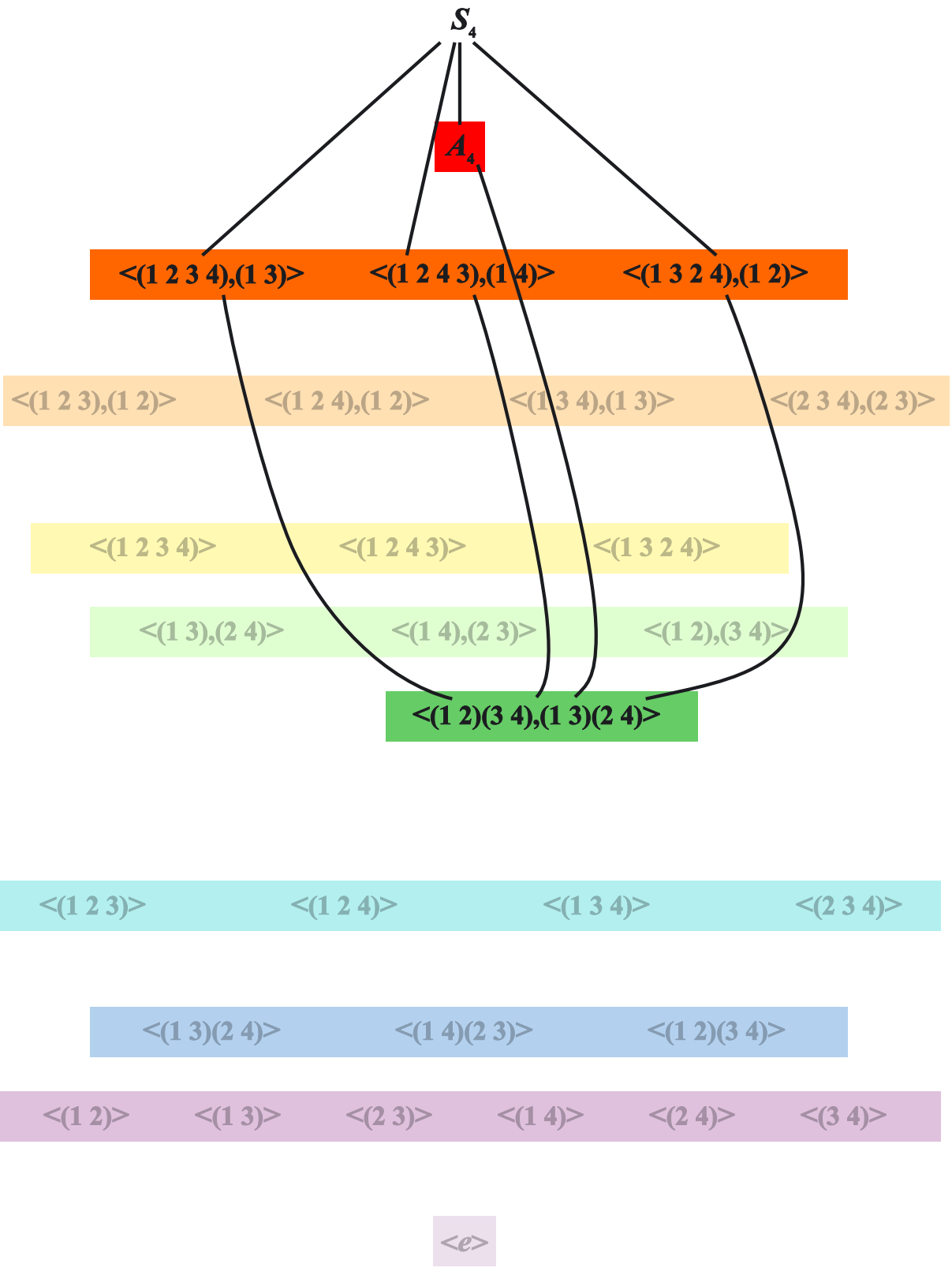
Links Through S_3



A_4 subgroup diagram



Subgroups containing the normal copy of V



Isomorphism Theorems: Comparison to subgroups of $S_3 \cong S_4 / V$