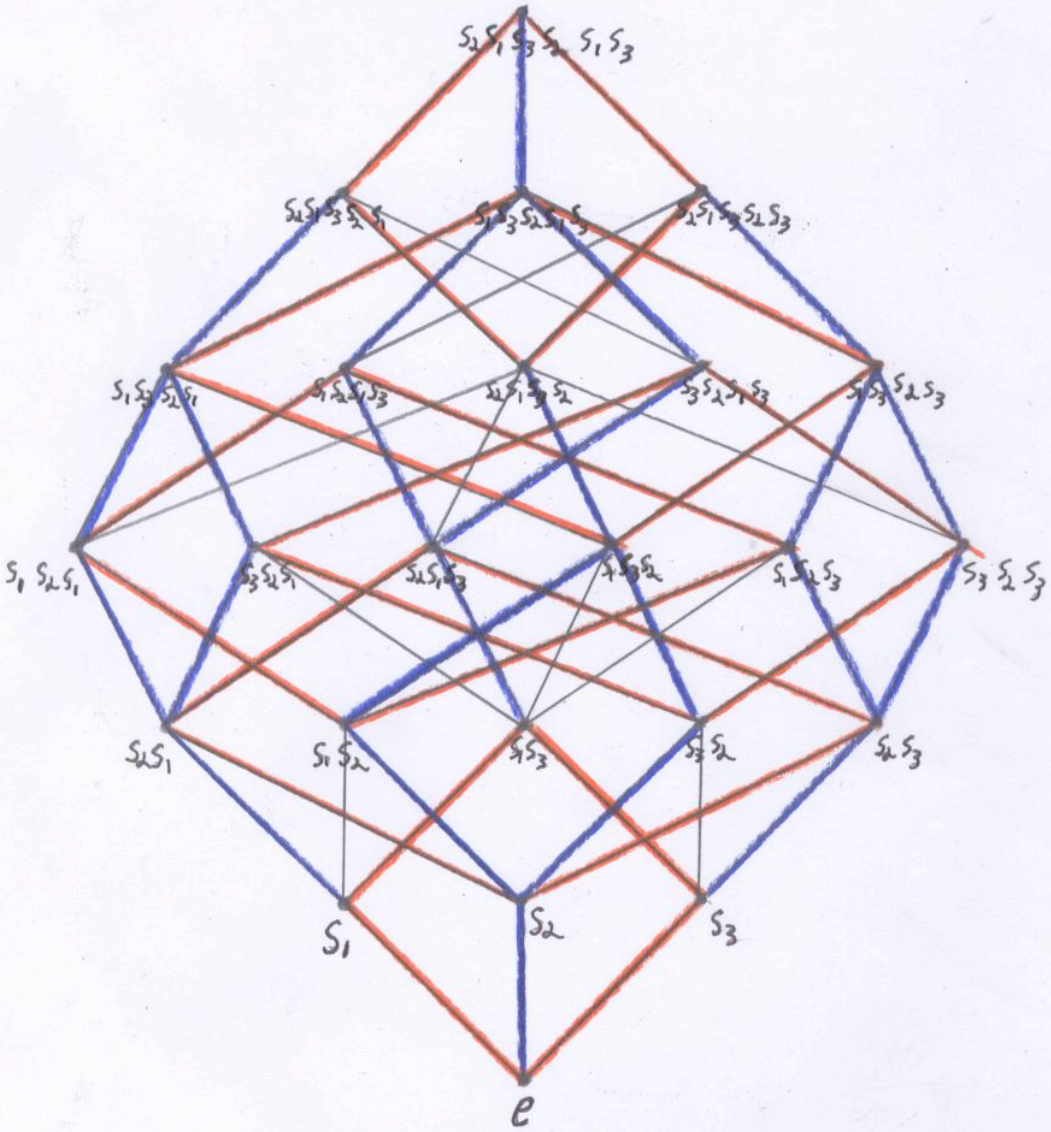
(4) Consider the Coxeter System $(S_4, \{s_1, s_2, s_3\})$; let $J = \{s_1, s_3\}$. Draw the Bruhart order of S_4 and the product poset $(S_4)^J \times (S_4)_J$ inside it.



$(S_4)_J = \{e, s_1, s_3, s_1 s_3\}$

$(S_4)^J = \{e, s_2, s_1 s_2, s_3 s_2, s_1 s_3 s_2, s_2 s_1 s_3 s_2\}$