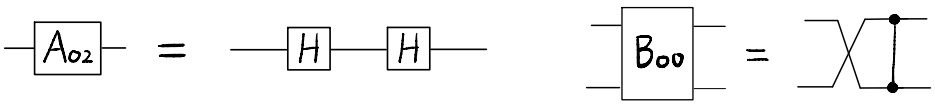
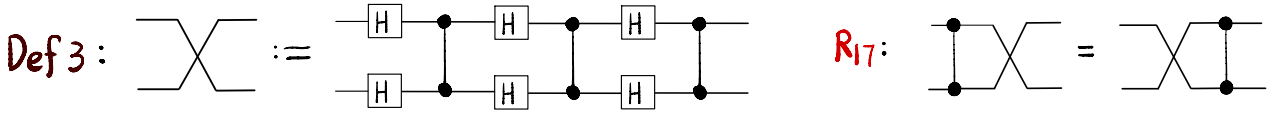
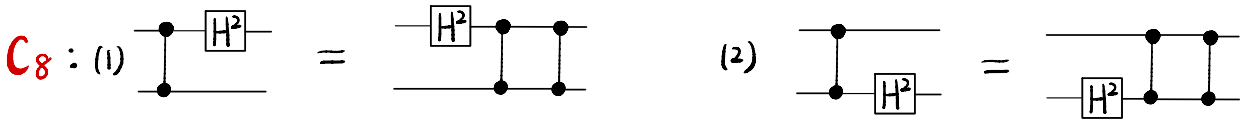
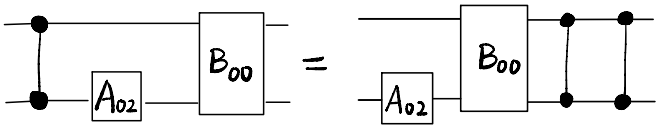




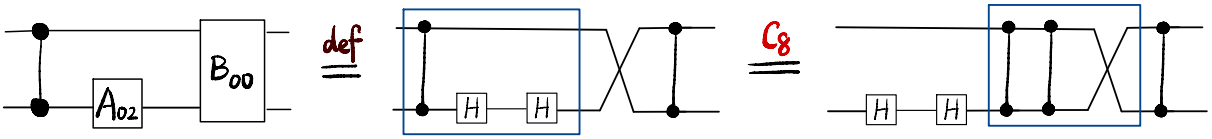


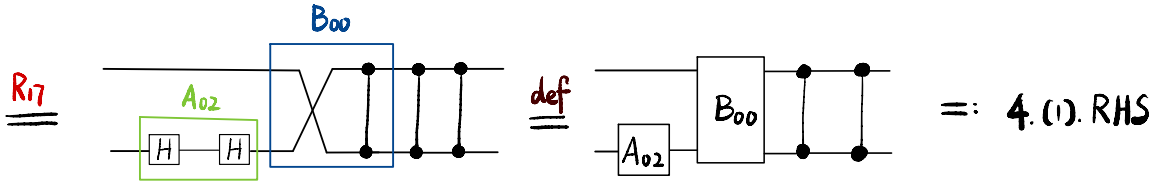
Lem 41 By Def 3, C_8 & R_{17},

4. (1)



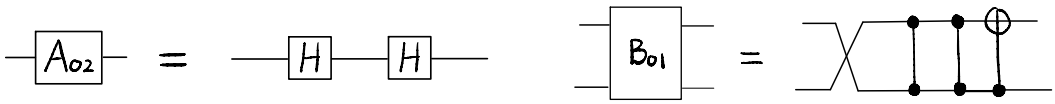
Proof : 4. (1). LHS :=

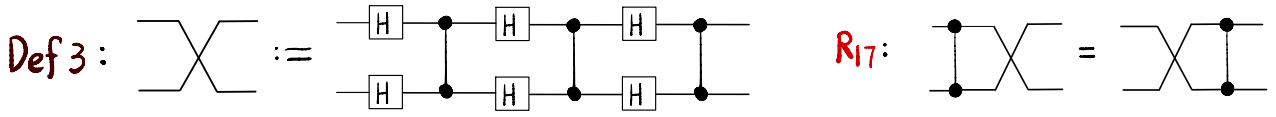


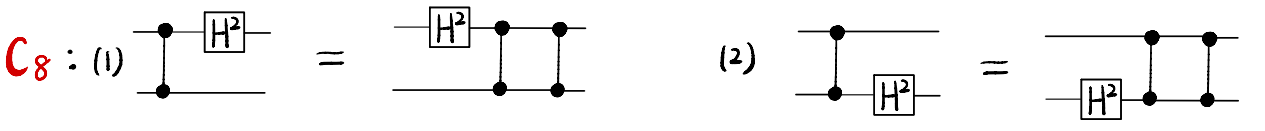


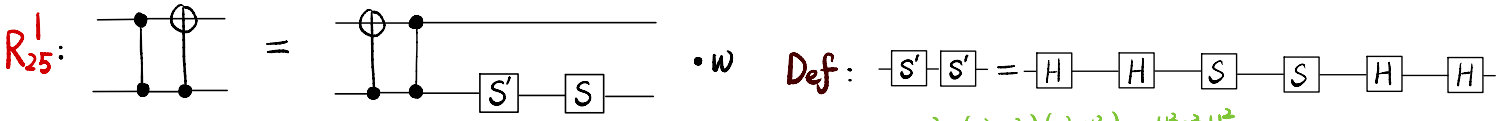
=: 4. (1). RHS

///





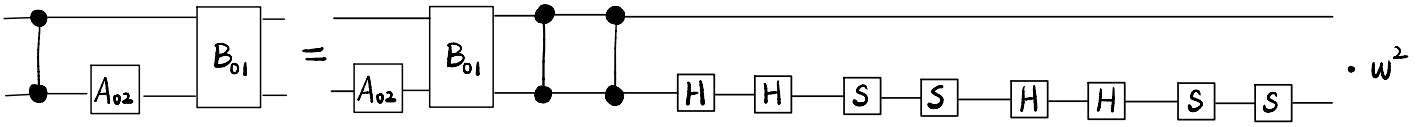




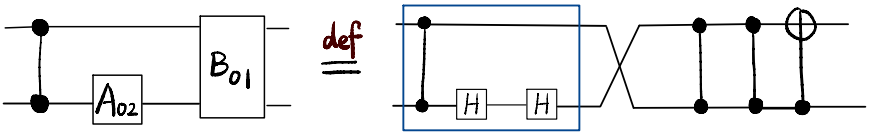
C_5 : $SH^2SH^2 = H^2SH^2S$ $SS' = S'S$

Lem 42 By Def 3, C_5, C_7, C_8, R_{15}, R_{17} & R_{25},

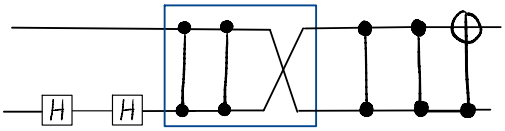
4. (2)



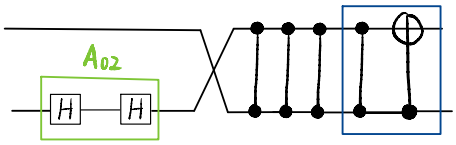
Proof : 4. (2). LHS :=



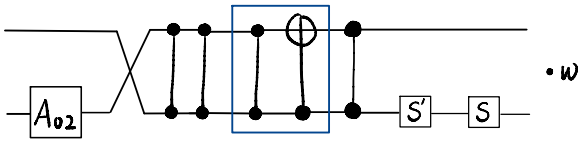
C_8 =



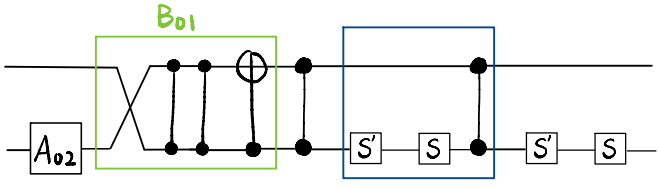
R_{17} =



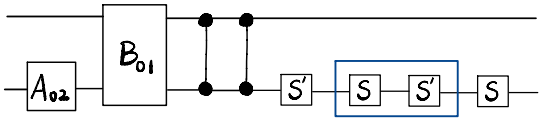
R_{25} def =



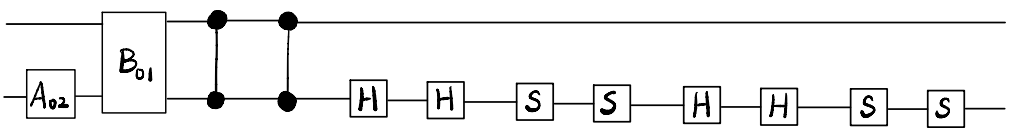
R_{25} =



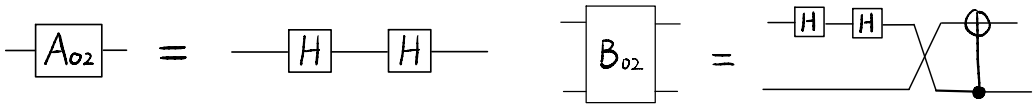
R_{15}, C_7 def =

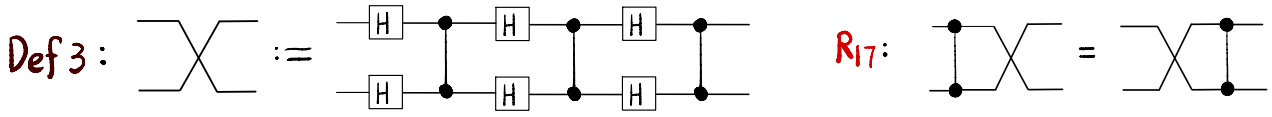


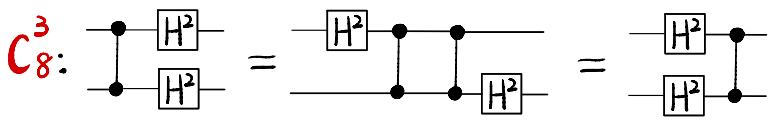
C_5 def =

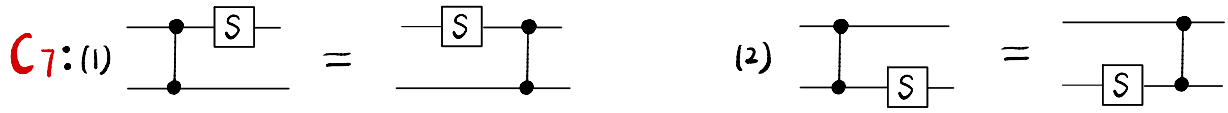


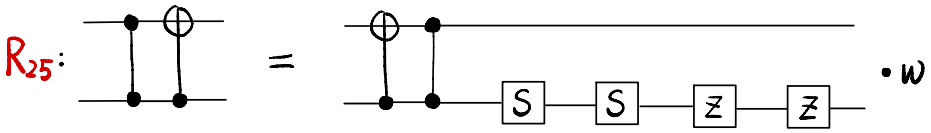
=: 4. (2). RHS ∎



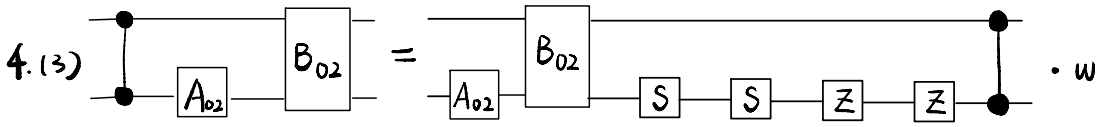




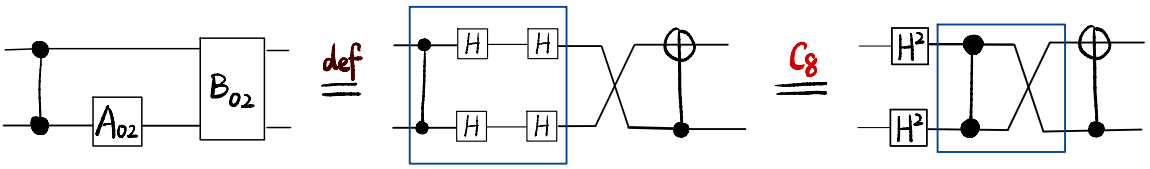


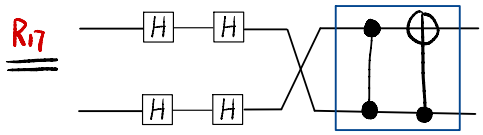


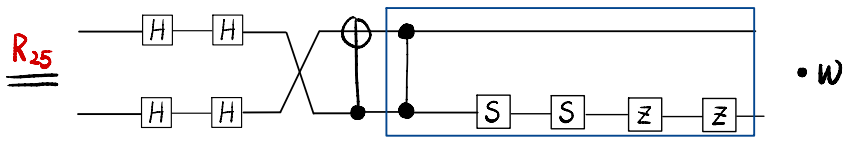
Lem 43 By Def 3, C_7, C_8, R_{13}, R_{17} & R_{25},

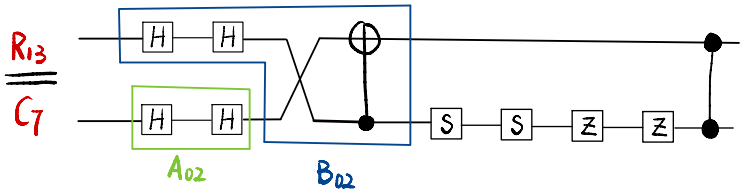


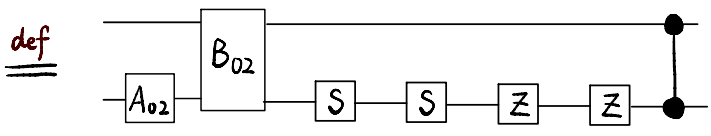
Proof : 4.(3).LHS :=





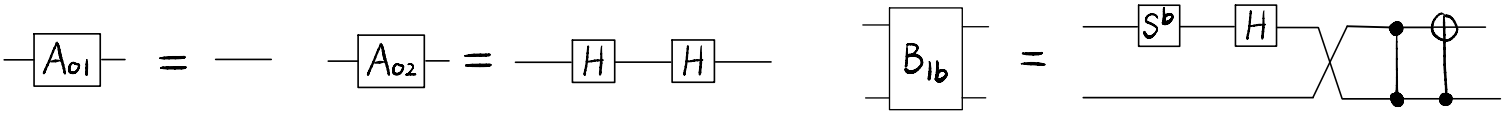


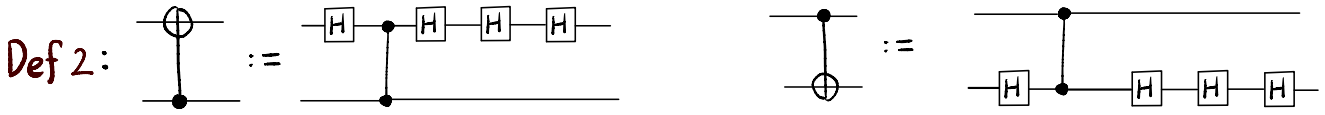


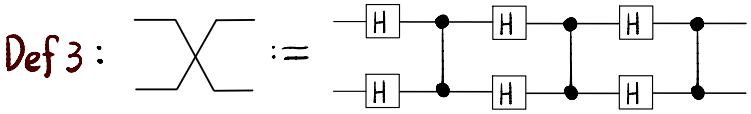


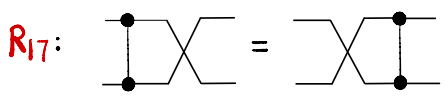
=: 4.(3).RHS

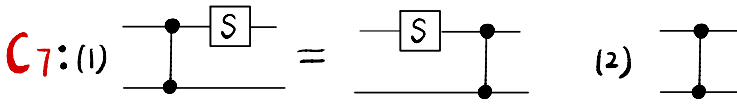
///

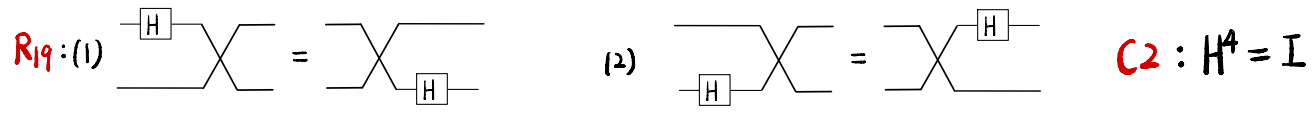


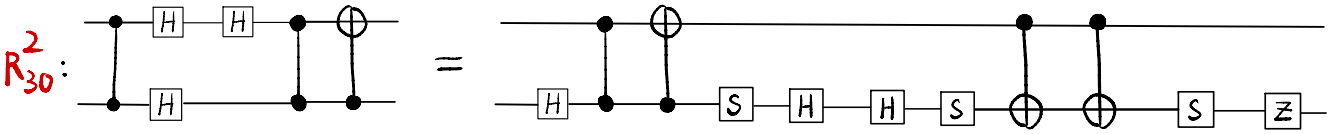




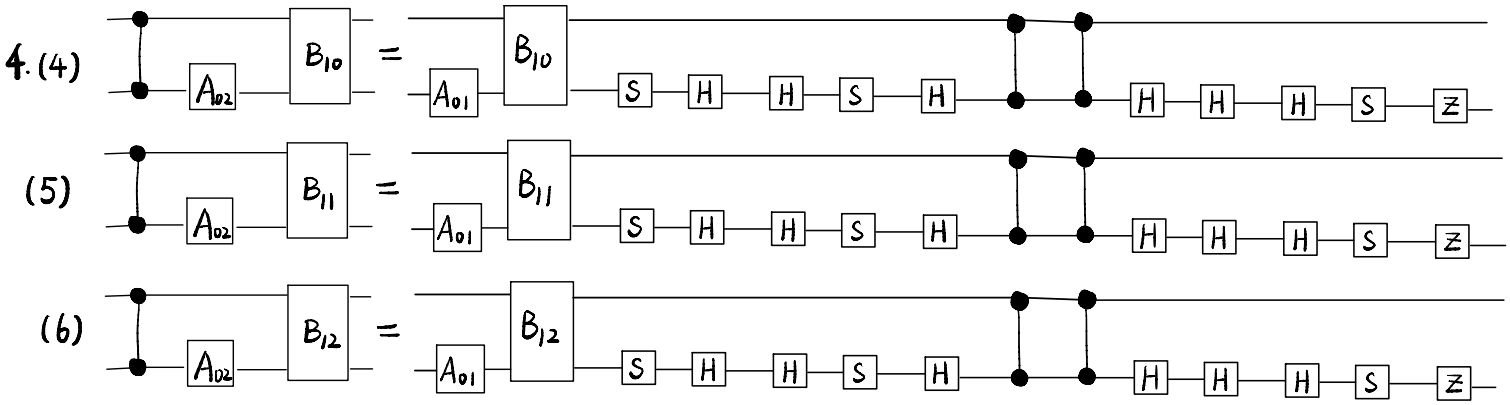


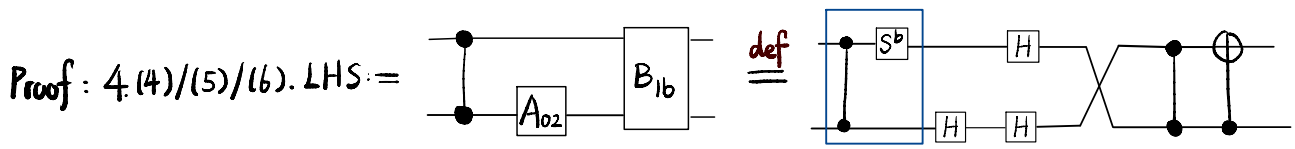


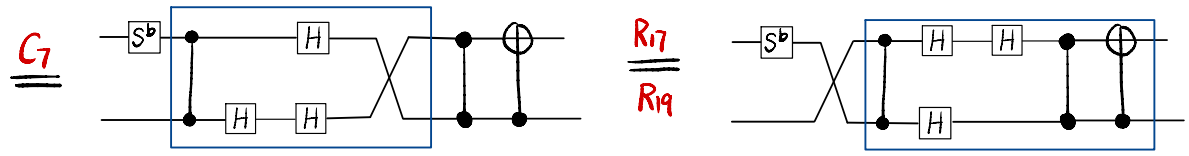


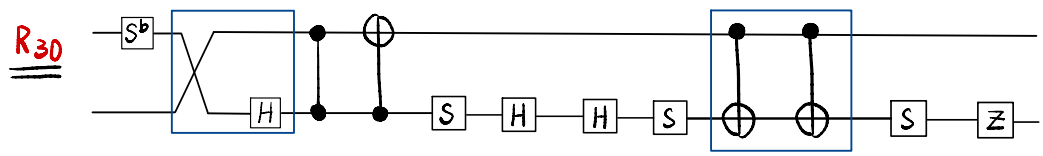


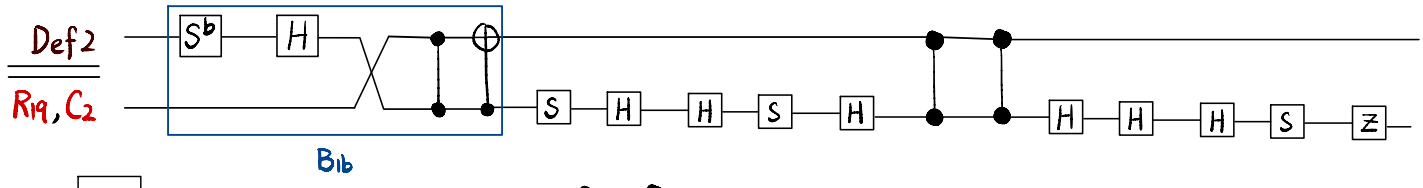
Lem 44 By Def 2, Def 3, C_7, R_{17}, R_{19} & R_{30},

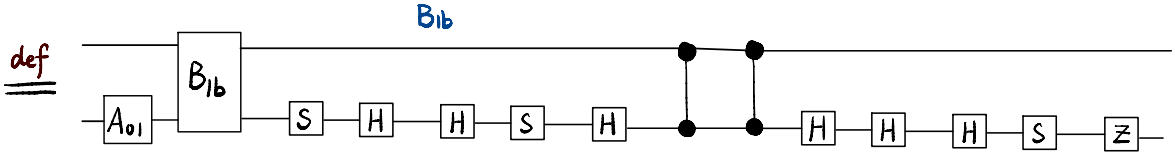




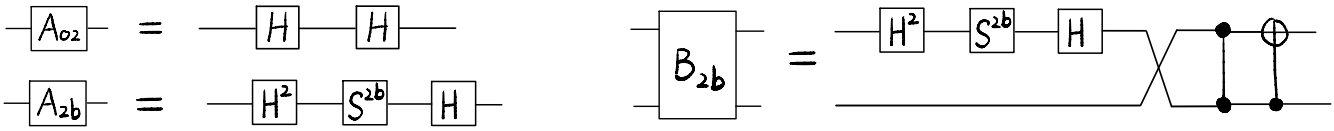


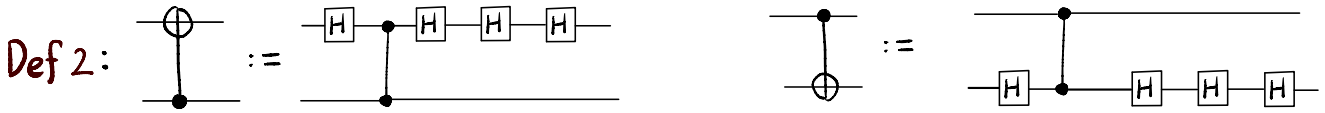


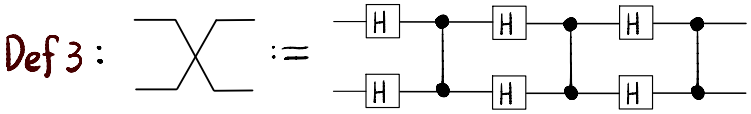


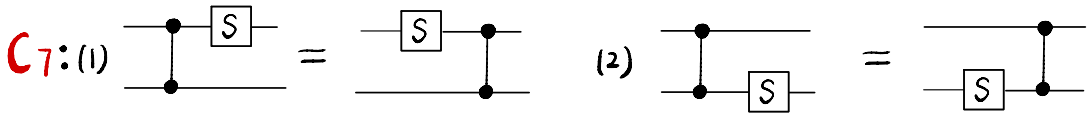


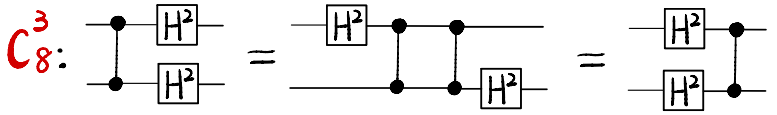
=: 4.(4)/(5)/(6). RHS ∎

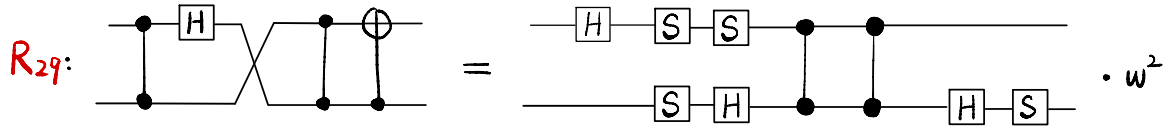




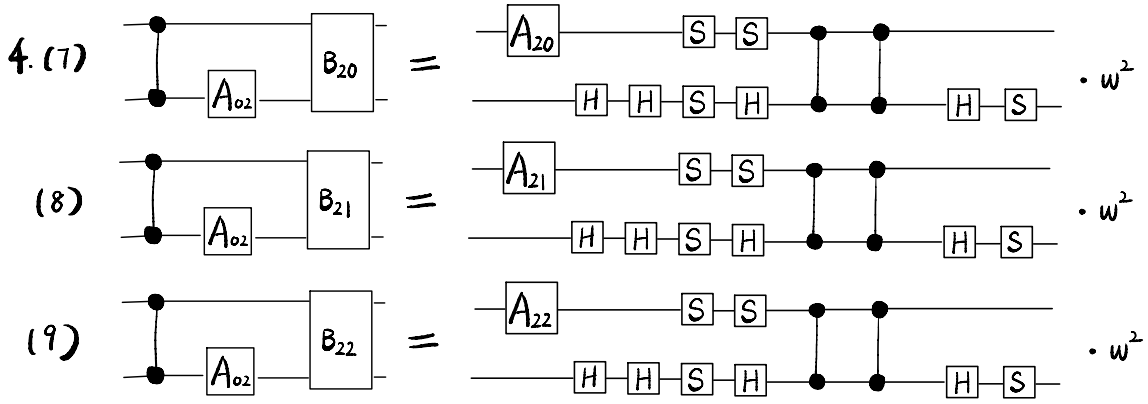




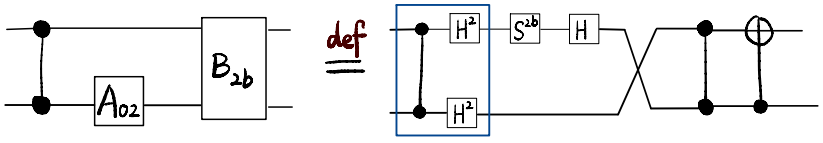


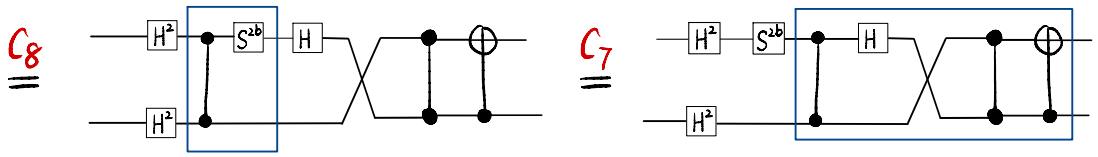


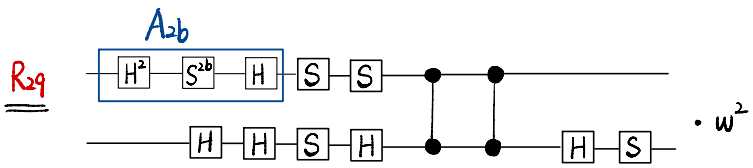
Lem 45 By Def 2, Def 3, C_7, C_8 & R_{29},

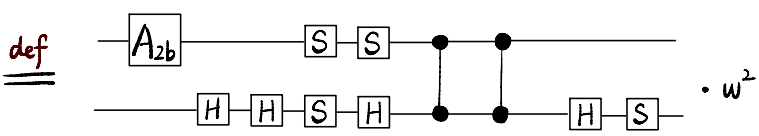


Proof : 4.(7)/(8)/(9). LHS :=









=: 4.(7)/(8)/(9). RHS

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