Moshe Cohen* (cohenm10@macs.biu.ac.il), Bar-Ilan University, Department of Mathematics, 52900 Ramat Gan, Israel, and Mina Teicher. Computing the height of Kauffmam's clock lattice. Preliminary report.

We give an algorithmic computation for the height of Kauffman's clock lattice obtained from a knot diagram with two adjacent regions starred and without crossing information specified.

Abe defines the clock number p(K) of a knot K to be the minimum over all diagrams of the height of the clock lattice obtained from a knot diagram. We show that this lattice is more familiarly the graph of perfect matchings of a bipartite graph Γ obtained from the knot diagram by overlaying the Tait graph G of the knot and its dual G^* .

We obtain upper bounds for the clock number p(K) of the knot from the combinatorics of Γ . (Received May 15, 2012)