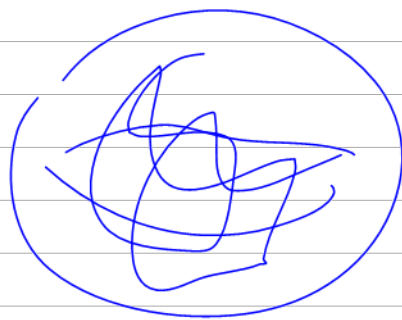


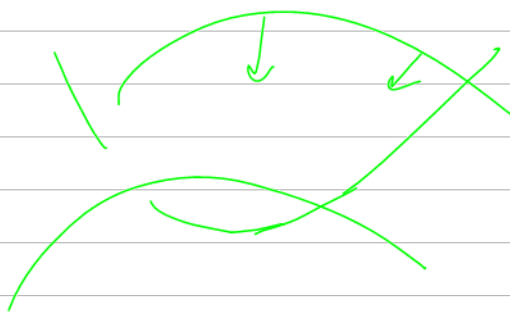
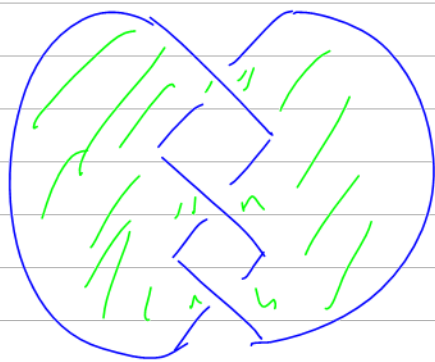
yarn-ball
knots.



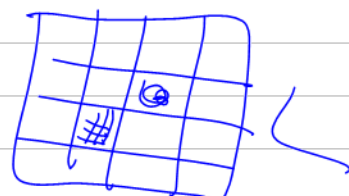
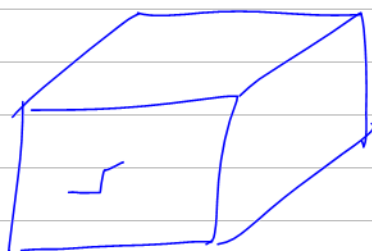
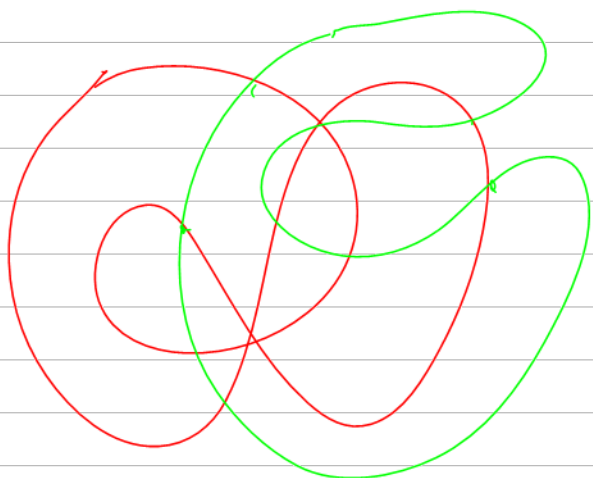
$$n = V^{4/3} = L^2 \cdot L^2 \quad V = L^3$$

Def ϕ is 3D

$$C_{YB}(V) \ll C_{PD}(V^{4/3})$$

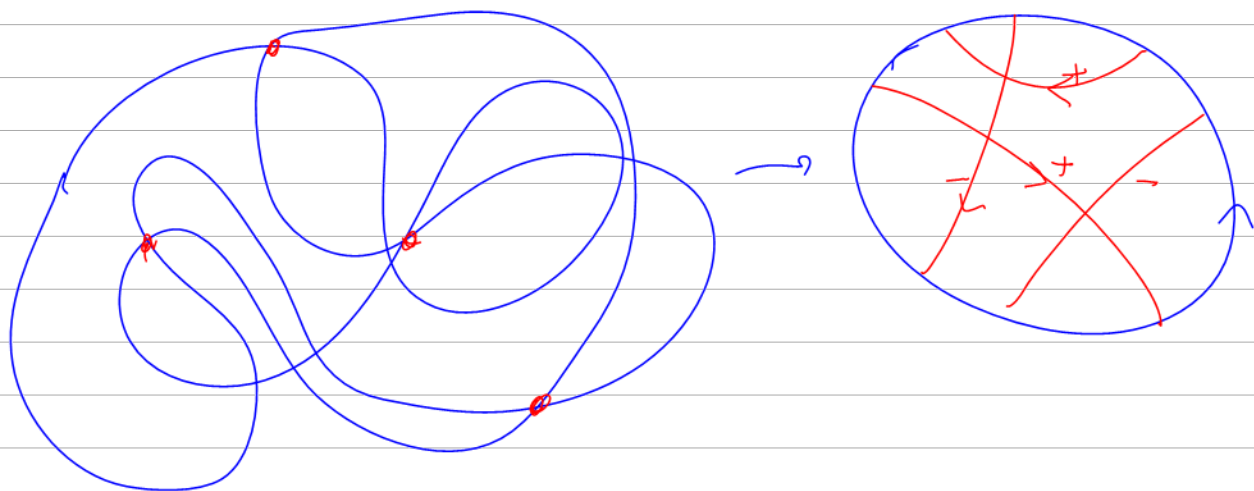


$$C_{PD}(fk) = n$$



$$L^2 \cdot L = L^3$$

Gauss Diagram invts: of type P



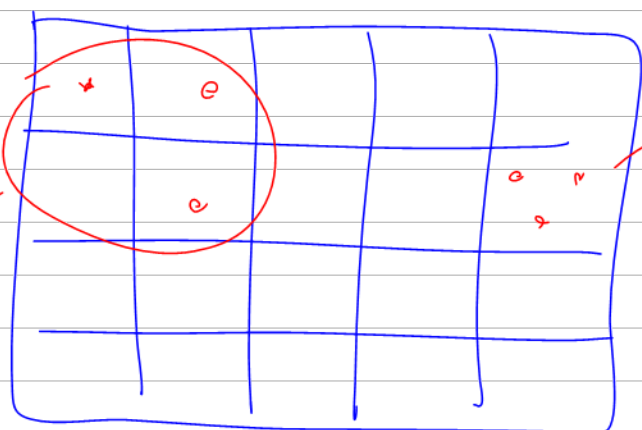
$$\{\text{knots}\} \xrightarrow{\Psi} \mathbb{Z} \left[\begin{array}{c} \text{circular diagram} \end{array} \right] \xrightarrow{\varphi} \mathbb{Z}$$

A curved arrow also points from the set of knots directly to the final \mathbb{Z} .

$$C_{PD}(\Psi) = n^p$$

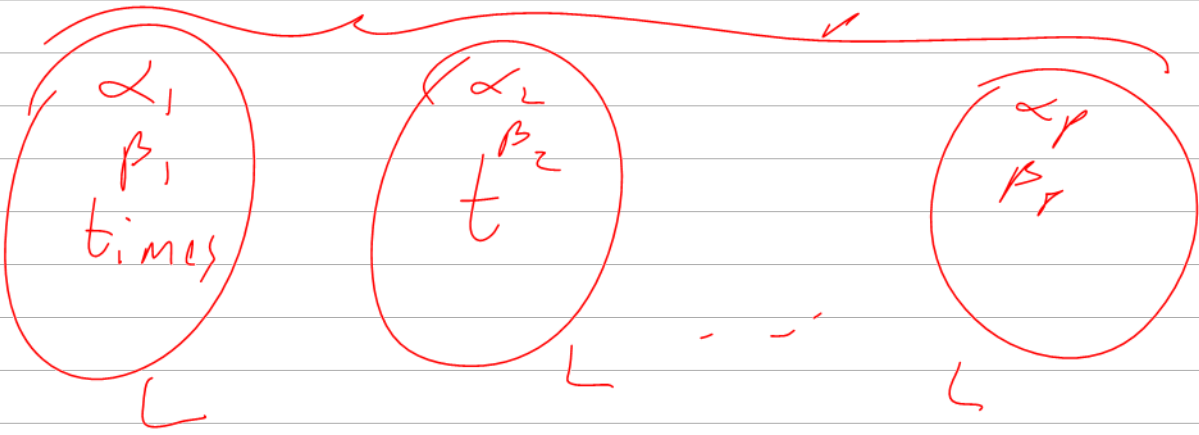
$$C_{YB}(\Psi)$$

$p=3$



what I asked

the following:



$$h(\alpha_i) \leq h(\beta_i)$$

$$\alpha_1 < \beta_1 < \alpha_2 < \alpha_3 < \beta_2 < \alpha_4 \dots$$

do that in less than L^{2p}

can do $L^{p+1} (\log \dots)$

