① Let $A = \Bbbk(1 \longrightarrow 3 \longleftarrow 2)$.

Compute the A_∞-structure on $Ext_A^*(P(3) \oplus I(3), P(3) \oplus I(3))$

② Let $A = \Bbbk\left(\begin{array}{ccccc} & & 2 & & \\ & \overset{\alpha}{\nearrow} & & \overset{\beta}{\searrow} & \\ 1 & & & & 4 \\ & \underset{\gamma}{\searrow} & & \underset{\delta}{\nearrow} & \\ & & 3 & & \end{array}\right) / (\delta\gamma - \beta\alpha)$. Compute at least two

different A_∞-structures on $Ext_A^*(\mathbb{L}, \mathbb{L})$.

③ Let $\mathcal{E} = \Bbbk\left(1 \underset{\alpha}{\overset{\varphi}{\rightrightarrows}} 2\right)$, $\deg \varphi = 0$, $\deg \alpha = 1$.

Determine $H^0(T_w \mathcal{E})$ and $H^0(T_w^\circ \mathcal{E})$.