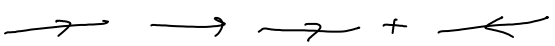
# 6T, 4T, and ?

December-15-09
9:51 AM

Define $\alpha, \beta : \vec{\mathcal{D}} \to \vec{\mathcal{A}}$ by

$\alpha$ : 

$\beta$ : 

Question What are $\ker\alpha$ and $\ker\beta$?

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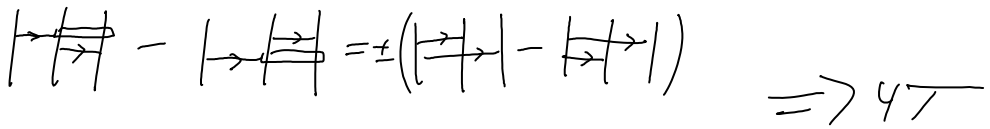
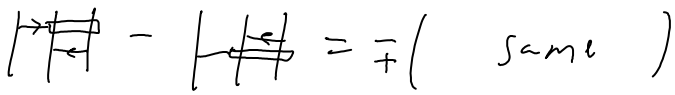
$\ker\alpha$ is (at least locally) 4T, by direct inspection (though a better proof would be welcome):



$\Rightarrow$ 4T



(so maybe we got more than 4T, as we've used less than "all" of $\alpha$)

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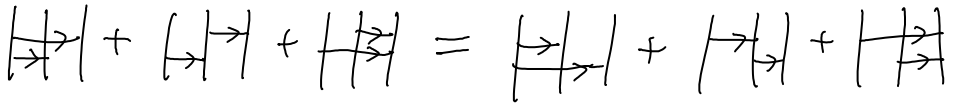
Is $\beta(6T)$ a sum of 6Ts?

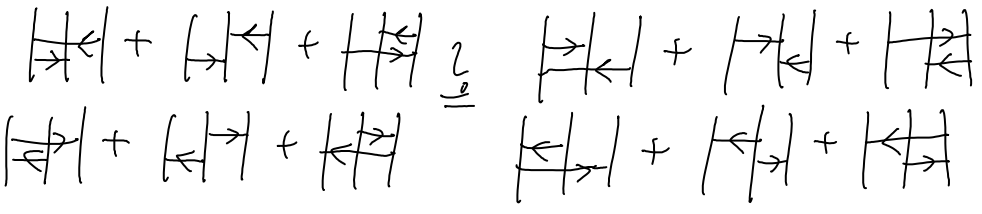


$\Downarrow$

preserve both arrows ✓

reverse both arrows ✓

Reverse one arrow:



... Probably not.

Some short sequences:

$$\left\{\begin{matrix}4T,\\ \mathrm{sym}A\end{matrix}\right\} \longrightarrow \vec{\mathcal{D}} \xrightarrow{\alpha} \vec{\mathcal{A}} \quad \text{folds to} \quad \mathcal{A} = \vec{\mathcal{D}}/_{4T,\,\mathrm{sym}A} \xrightarrow{\alpha} \vec{\mathcal{A}}$$