Weekly Meeting

Topic: Property α for SOA of strength 3 with $s = 3$

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Date: Apr 10, 2024

A grouping for $k = 4$

α	β	$\alpha \cdot \beta$	$\alpha \cdot \beta^2$
1	2	12	12^2
1^2	2^2	$1^2 2^2$	1^2
2	1^2	$1^2 2$	12
2^2	1	12^2	$1^2 2^2$
12	12^2	1^2	2^2
$1^2 2^2$	$1^2 2$	1	2
12^2	$1^2 2^2$	2	1^2
$1^2 2$	12	2^2	1

Issue

- Since 1 is equivalent to 1^2, $13 \times 1^2 3 \times 1 = I$.
- It does not have resolution IV. The final D should pass the check on `s22` and `s111`.
- Need to try other permutations.
- Maybe $m = 10$ can be found.

Other things to do

- How to find the grouping for $k = 6$ by utilizing the grouping for $k = 4$
- Since we need A to be of res. IV, the grouping of $k = 5$ is really not of interest. Find the grouping of $k = 3$, if the permutation of $k = 3$ is not feasible.