Computations for "(Non-)vanishing results for extensions between simple outer functors on free groups"

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In this document, one can find the result of some computations performed for the paper "(Non-)vanishing results for extensions between outer functors on free groups" [Hai23]. These computations have been performed with Sage [Sage10.5], and the algorithms can be accessed here: `https://github.com/louishainaut/Ext-Outer-Functors`.

Three tables are included in this document, one in each section. The first table (Section 1) shows the graded pieces $(\omega\beta\mathbb{Q}\mathfrak{S}_m)^{[n]}$ for all $1 \leq n \leq m$. They have already been computed in [GH24], but they are included anyway since they are needed for our computations.

The second table (Section 2) shows the Euler characteristics $\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes m}))$, computed from the graded pieces of the previous table, as described in the proof of [Hai23, Theorem 4.11].

The third table (Section 3) shows the correction terms associated to the approximation described in [Hai23, Remark 4.23].

1 Composition factors Out

The following table shows the composition factors $(\omega\beta\mathbb{Q}\mathfrak{S}_m)^{[n]}$, computed in [GH24]. The algorithms used to obtain these composition factors can be accessed here `https://github.com/louishainaut/GH-ConfSpace`, and some of them have been reused for this project.

The leftmost column is the pair (n, m), the middle column is the $(\mathbb{Q}\mathfrak{S}_n, \mathbb{Q}\mathfrak{S}_m)$-bimodule corresponding to $(\omega\beta\mathbb{Q}\mathfrak{S}_m)^{[n]}$, and the rightmost column is the rank of this bimodule.

(n, m)	$(\omega\beta\mathbb{Q}\mathfrak{S}_m)^{[n]}$	dim
$(0, 0)$	$(S_{(0)} \boxtimes S_{(0)})$	1
$(0, 1)$	0	0
$(1, 1)$	$(S_{(1)} \boxtimes S_{(1)})$	1
$(0, 2)$	0	0
$(1, 2)$	0	0
$(2, 2)$	$(S_{(1^2)} \boxtimes S_{(1^2)}) + (S_{(2)} \boxtimes S_{(2)})$	2
$(0, 3)$	0	0
$(1, 3)$	0	0
$(2, 3)$	$(S_{(2)} \boxtimes S_{(1^3)})$	1
$(3, 3)$	$(S_{(1^3)} \boxtimes S_{(1^3)}) + (S_{(2,1)} \boxtimes S_{(2,1)}) + (S_{(3)} \boxtimes S_{(3)})$	6
$(0, 4)$	0	0
$(1, 4)$	0	0
$(2, 4)$	$(S_{(2)} \boxtimes S_{(2^2)})$	2

$(3,4)$	$(S_{(2,1)} \boxtimes S_{(1^4)}) + (S_{(2,1)} \boxtimes S_{(2,1^2)}) + (S_{(3)} \boxtimes S_{(2,1^2)}) + (S_{(1^3)} \boxtimes S_{(2^2)})$	13
$(4,4)$	$(S_{(1^4)} \boxtimes S_{(1^4)}) + (S_{(2,1^2)} \boxtimes S_{(2,1^2)}) + (S_{(2^2)} \boxtimes S_{(2^2)}) + (S_{(3,1)} \boxtimes S_{(3,1)}) + (S_{(4)} \boxtimes S_{(4)})$	24
$(0,5)$	0	0
$(1,5)$	0	0
$(2,5)$	$(S_{(2)} \boxtimes S_{(3,1^2)})$	6
$(3,5)$	$(S_{(3)} \boxtimes S_{(1^5)}) + (S_{(2,1)} \boxtimes S_{(2^2,1)}) + (S_{(3)} \boxtimes S_{(2^2,1)}) + (S_{(1^3)} \boxtimes S_{(3,1^2)}) + (S_{(2,1)} \boxtimes S_{(3,2)}) + (S_{(3)} \boxtimes S_{(3,2)})$	37
$(4,5)$	$(S_{(2,1^2)} \boxtimes S_{(1^5)}) + (S_{(2,1^2)} \boxtimes S_{(2,1^3)}) + (S_{(2^2)} \boxtimes S_{(2,1^3)}) + (S_{(3,1)} \boxtimes S_{(2,1^3)}) + (S_{(1^4)} \boxtimes S_{(2^2,1)}) + (S_{(2,1^2)} \boxtimes S_{(2^2,1)}) + (S_{(3,1)} \boxtimes S_{(2^2,1)}) + (S_{(2^2)} \boxtimes S_{(3,1^2)}) + (S_{(3,1)} \boxtimes S_{(3,1^2)}) + (S_{(4)} \boxtimes S_{(3,1^2)}) + (S_{(2,1^2)} \boxtimes S_{(3,2)})$	121
$(5,5)$	$(S_{(1^5)} \boxtimes S_{(1^5)}) + (S_{(2,1^3)} \boxtimes S_{(2,1^3)}) + (S_{(2^2,1)} \boxtimes S_{(2^2,1)}) + (S_{(3,1^2)} \boxtimes S_{(3,1^2)}) + (S_{(3,2)} \boxtimes S_{(3,2)}) + (S_{(4,1)} \boxtimes S_{(4,1)}) + (S_{(5)} \boxtimes S_{(5)})$	120
$(0,6)$	0	0
$(1,6)$	0	0
$(2,6)$	$(S_{(2)} \boxtimes S_{(2^3)}) + (S_{(2)} \boxtimes S_{(3,1^3)}) + (S_{(2)} \boxtimes S_{(4,2)})$	24
$(3,6)$	$(S_{(3)} \boxtimes S_{(2^2,1^2)}) + (S_{(1^3)} \boxtimes S_{(2^3)}) + (S_{(1^3)} \boxtimes S_{(3,1^3)}) + (S_{(2,1)} \boxtimes S_{(3,1^3)}) + (S_{(3)} \boxtimes S_{(3,1^3)}) + (S_{(2,1)} \boxtimes S_{(3,2,1)}) + (S_{(3)} \boxtimes S_{(3,2,1)}) + (S_{(3)} \boxtimes S_{(3^2)}) + (S_{(2,1)} \boxtimes S_{(4,1^2)}) + (S_{(3)} \boxtimes S_{(4,1^2)}) + (S_{(1^3)} \boxtimes S_{(4,2)})$	146
$(4,6)$	$(S_{(3,1)} \boxtimes S_{(1^6)}) + (S_{(2^2)} \boxtimes S_{(2,1^4)}) + (S_{(3,1)} \boxtimes S_{(2,1^4)}) + (S_{(4)} \boxtimes S_{(2,1^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^2)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^2)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(2^3)}) + (S_{(3,1)} \boxtimes S_{(2^3)}) + (S_{(4)} \boxtimes S_{(2^3)}) + (S_{(1^4)} \boxtimes S_{(3,1^3)}) + (S_{(2,1^2)} \boxtimes S_{(3,1^3)}) + (S_{(2^2)} \boxtimes S_{(3,1^3)}) + (S_{(1^4)} \boxtimes S_{(3,2,1)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1)}) + (S_{(2^2)} \boxtimes S_{(3,2,1)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1)}) + (S_{(4)} \boxtimes S_{(3,2,1)}) + (S_{(2,1^2)} \boxtimes S_{(3^2)}) + (S_{(3,1)} \boxtimes S_{(3^2)}) + (S_{(2,1^2)} \boxtimes S_{(4,1^2)}) + (S_{(2^2)} \boxtimes S_{(4,2)}) + (S_{(3,1)} \boxtimes S_{(4,2)}) + (S_{(4)} \boxtimes S_{(4,2)})$	611
$(5,6)$	$(S_{(2,1^3)} \boxtimes S_{(1^6)}) + (S_{(2,1^3)} \boxtimes S_{(2,1^4)}) + (S_{(2^2,1)} \boxtimes S_{(2,1^4)}) + (S_{(3,1^2)} \boxtimes S_{(2,1^4)}) + (S_{(1^5)} \boxtimes S_{(2^2,1^2)}) + (S_{(2,1^3)} \boxtimes S_{(2^2,1^2)}) + (S_{(2^2,1)} \boxtimes S_{(2^2,1^2)}) + (S_{(3,1^2)} \boxtimes S_{(2^2,1^2)}) + (S_{(3,2)} \boxtimes S_{(2^2,1^2)}) + (S_{(2,1^3)} \boxtimes S_{(2^3)}) + (S_{(3,1^2)} \boxtimes S_{(2^3)}) + (S_{(2^2,1)} \boxtimes S_{(3,1^3)}) + (S_{(3,1^2)} \boxtimes S_{(3,1^3)}) + (S_{(3,2)} \boxtimes S_{(3,1^3)}) + (S_{(4,1)} \boxtimes S_{(3,1^3)}) + (S_{(2,1^3)} \boxtimes S_{(3,2,1)}) + (S_{(2^2,1)} \boxtimes S_{(3,2,1)}) + (S_{(3,1^2)} \boxtimes S_{(3,2,1)}) + (S_{(3,2)} \boxtimes S_{(3,2,1)}) + (S_{(4,1)} \boxtimes S_{(3,2,1)}) + (S_{(2^2,1)} \boxtimes S_{(3^2)}) + (S_{(3,2)} \boxtimes S_{(4,1^2)}) + (S_{(4,1)} \boxtimes S_{(4,1^2)}) + (S_{(5)} \boxtimes S_{(4,1^2)}) + (S_{(3,1^2)} \boxtimes S_{(4,2)})$	1081
$(6,6)$	$(S_{(1^6)} \boxtimes S_{(1^6)}) + (S_{(2,1^4)} \boxtimes S_{(2,1^4)}) + (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^2)}) + (S_{(2^3)} \boxtimes S_{(2^3)}) + (S_{(3,1^3)} \boxtimes S_{(3,1^3)}) + (S_{(3,2,1)} \boxtimes S_{(3,2,1)}) + (S_{(3^2)} \boxtimes S_{(3^2)}) + (S_{(4,1^2)} \boxtimes S_{(4,1^2)}) + (S_{(4,2)} \boxtimes S_{(4,2)}) + (S_{(5,1)} \boxtimes S_{(5,1)}) + (S_{(6)} \boxtimes S_{(6)})$	720
$(0,7)$	0	0
$(1,7)$	0	0
$(2,7)$	$(S_{(2)} \boxtimes S_{(2^2,1^3)}) + (S_{(2)} \boxtimes S_{(3,2,1^2)}) + (S_{(2)} \boxtimes S_{(3^2,1)}) + (S_{(2)} \boxtimes S_{(4,2,1)}) + (S_{(2)} \boxtimes S_{(5,1^2)})$	120
$(3,7)$	$(S_{(1^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(2,1)} \boxtimes S_{(2^3,1)}) + (S_{(3)} \boxtimes S_{(2^3,1)}) + (S_{(2,1)} \boxtimes S_{(3,1^4)}) + 2 \cdot (S_{(3)} \boxtimes S_{(3,1^4)}) + (S_{(1^3)} \boxtimes S_{(3,2,1^2)}) + (S_{(2,1)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(3)} \boxtimes S_{(3,2,1^2)}) + (S_{(2,1)} \boxtimes S_{(3,2^2)}) + 2 \cdot (S_{(3)} \boxtimes S_{(3,2^2)}) + (S_{(1^3)} \boxtimes S_{(3^2,1)}) + (S_{(2,1)} \boxtimes S_{(4,1^3)}) + (S_{(3)} \boxtimes S_{(4,1^3)}) + (S_{(1^3)} \boxtimes S_{(4,2,1)}) + (S_{(2,1)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(3)} \boxtimes S_{(4,2,1)}) + (S_{(2,1)} \boxtimes S_{(4,3)}) + (S_{(3)} \boxtimes S_{(4,3)}) + (S_{(1^3)} \boxtimes S_{(5,1^2)}) + (S_{(2,1)} \boxtimes S_{(5,2)}) + (S_{(3)} \boxtimes S_{(5,2)})$	730

$(4,7)$	$(S_{(4)} \boxtimes S_{(1^7)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(2^2,1^3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(4)} \boxtimes S_{(2^2,1^3)}) + (S_{(1^4)} \boxtimes S_{(2^3,1)}) + (S_{(2,1^2)} \boxtimes S_{(2^3,1)}) + (S_{(3,1)} \boxtimes S_{(2^3,1)}) + (S_{(4)} \boxtimes S_{(2^3,1)}) + (S_{(1^4)} \boxtimes S_{(3,1^4)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(3,1^4)}) + (S_{(3,1)} \boxtimes S_{(3,1^4)}) + (S_{(1^4)} \boxtimes S_{(3,2,1^2)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^2)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^2)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(4)} \boxtimes S_{(3,2,1^2)}) + (S_{(1^4)} \boxtimes S_{(3,2^2)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^2)}) + (S_{(3,1)} \boxtimes S_{(3,2^2)}) + (S_{(2,1^2)} \boxtimes S_{(3^2,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(3^2,1)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(3^2,1)}) + 2 \cdot (S_{(4)} \boxtimes S_{(3^2,1)}) + (S_{(1^4)} \boxtimes S_{(4,1^3)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(4,1^3)}) + (S_{(2^2)} \boxtimes S_{(4,1^3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(4,1^3)}) + (S_{(4)} \boxtimes S_{(4,1^3)}) + (S_{(1^4)} \boxtimes S_{(4,2,1)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(4,2,1)}) + (S_{(4)} \boxtimes S_{(4,2,1)}) + (S_{(1^4)} \boxtimes S_{(4,3)}) + (S_{(2,1^2)} \boxtimes S_{(4,3)}) + (S_{(3,1)} \boxtimes S_{(4,3)}) + (S_{(4)} \boxtimes S_{(4,3)}) + (S_{(2^2)} \boxtimes S_{(5,1^2)}) + (S_{(3,1)} \boxtimes S_{(5,1^2)}) + (S_{(4)} \boxtimes S_{(5,1^2)}) + (S_{(2,1^2)} \boxtimes S_{(5,2)})$	3462
$(5,7)$	$(S_{(3,1^2)} \boxtimes S_{(1^7)}) + (S_{(2^2,1)} \boxtimes S_{(2,1^5)}) + (S_{(3,1^2)} \boxtimes S_{(2,1^5)}) + (S_{(3,2)} \boxtimes S_{(2,1^5)}) + (S_{(4,1)} \boxtimes S_{(2,1^5)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(2^2,1)} \boxtimes S_{(2^2,1^3)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(2^2,1^3)}) + (S_{(3,2)} \boxtimes S_{(2^2,1^3)}) + (S_{(4,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(2,1^3)} \boxtimes S_{(2^3,1)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(2^3,1)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(2^3,1)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(2^3,1)}) + (S_{(4,1)} \boxtimes S_{(2^3,1)}) + (S_{(1^5)} \boxtimes S_{(3,1^4)}) + (S_{(2,1^3)} \boxtimes S_{(3,1^4)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(3,1^4)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(3,1^4)}) + (S_{(4,1)} \boxtimes S_{(3,1^4)}) + (S_{(5)} \boxtimes S_{(3,1^4)}) + (S_{(1^5)} \boxtimes S_{(3,2,1^2)}) + 3 \cdot (S_{(2,1^3)} \boxtimes S_{(3,2,1^2)}) + 3 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2,1^2)}) + 4 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(3,2,1^2)}) + (S_{(1^5)} \boxtimes S_{(3,2^2)}) + (S_{(2,1^3)} \boxtimes S_{(3,2^2)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2^2)}) + (S_{(3,1^2)} \boxtimes S_{(3,2^2)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(3,2^2)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(3,2^2)}) + (S_{(5)} \boxtimes S_{(3,2^2)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(3^2,1)}) + (S_{(2^2,1)} \boxtimes S_{(3^2,1)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(3^2,1)}) + (S_{(3,2)} \boxtimes S_{(3^2,1)}) + (S_{(4,1)} \boxtimes S_{(3^2,1)}) + (S_{(2,1^3)} \boxtimes S_{(4,1^3)}) + (S_{(2^2,1)} \boxtimes S_{(4,1^3)}) + (S_{(3,1^2)} \boxtimes S_{(4,1^3)}) + (S_{(3,2)} \boxtimes S_{(4,1^3)}) + (S_{(2,1^3)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(4,2,1)}) + (S_{(5)} \boxtimes S_{(4,2,1)}) + (S_{(2^2,1)} \boxtimes S_{(4,3)}) + (S_{(3,1^2)} \boxtimes S_{(4,3)}) + (S_{(3,2)} \boxtimes S_{(4,3)}) + (S_{(4,1)} \boxtimes S_{(4,3)}) + (S_{(3,1^2)} \boxtimes S_{(5,1^2)}) + (S_{(3,2)} \boxtimes S_{(5,2)}) + (S_{(4,1)} \boxtimes S_{(5,2)}) + (S_{(5)} \boxtimes S_{(5,2)})$	8416
$(6,7)$	$(S_{(2,1^4)} \boxtimes S_{(1^7)}) + (S_{(2,1^4)} \boxtimes S_{(2,1^5)}) + (S_{(2^2,1^2)} \boxtimes S_{(2,1^5)}) + (S_{(3,1^3)} \boxtimes S_{(2,1^5)}) + (S_{(1^6)} \boxtimes S_{(2^2,1^3)}) + (S_{(2,1^4)} \boxtimes S_{(2^2,1^3)}) + (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^3)}) + (S_{(2^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(3,1^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(3,2,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(2,1^4)} \boxtimes S_{(2^3,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(2^3,1)}) + (S_{(3,1^3)} \boxtimes S_{(2^3,1)}) + (S_{(3,2,1)} \boxtimes S_{(2^3,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(3,1^4)}) + (S_{(3,1^3)} \boxtimes S_{(3,1^4)}) + (S_{(3,2,1)} \boxtimes S_{(3,1^4)}) + (S_{(4,1^2)} \boxtimes S_{(3,1^4)}) + (S_{(2,1^4)} \boxtimes S_{(3,2,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^2)}) + (S_{(2^3)} \boxtimes S_{(3,2,1^2)}) + (S_{(3,1^3)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^2)}) + (S_{(3^2)} \boxtimes S_{(3,2,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(3,2,1^2)}) + (S_{(4,2)} \boxtimes S_{(3,2,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(3,2^2)}) + (S_{(3,1^3)} \boxtimes S_{(3,2^2)}) + (S_{(3,2,1)} \boxtimes S_{(3,2^2)}) + (S_{(4,1^2)} \boxtimes S_{(3,2^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(3^2,1)}) + (S_{(2^3)} \boxtimes S_{(3^2,1)}) + (S_{(3,2,1)} \boxtimes S_{(3^2,1)}) + (S_{(4,2)} \boxtimes S_{(3^2,1)}) + (S_{(3,2,1)} \boxtimes S_{(4,1^3)}) + (S_{(4,1^2)} \boxtimes S_{(4,1^3)}) + (S_{(4,2)} \boxtimes S_{(4,1^3)}) + (S_{(5,1)} \boxtimes S_{(4,1^3)}) + (S_{(3,1^3)} \boxtimes S_{(4,2,1)}) + (S_{(3,2,1)} \boxtimes S_{(4,2,1)}) + (S_{(3^2)} \boxtimes S_{(4,2,1)}) + (S_{(4,1^2)} \boxtimes S_{(4,2,1)}) + (S_{(4,2)} \boxtimes S_{(4,2,1)}) + (S_{(5,1)} \boxtimes S_{(4,2,1)}) + (S_{(3,2,1)} \boxtimes S_{(4,3)}) + (S_{(4,2)} \boxtimes S_{(5,1^2)}) + (S_{(5,1)} \boxtimes S_{(5,1^2)}) + (S_{(6)} \boxtimes S_{(5,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(5,2)})$	10081
$(7,7)$	$(S_{(1^7)} \boxtimes S_{(1^7)}) + (S_{(2,1^5)} \boxtimes S_{(2,1^5)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(2^3,1)} \boxtimes S_{(2^3,1)}) + (S_{(3,1^4)} \boxtimes S_{(3,1^4)}) + (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(3,2^2)}) + (S_{(3^2,1)} \boxtimes S_{(3^2,1)}) + (S_{(4,1^3)} \boxtimes S_{(4,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(4,2,1)}) + (S_{(4,3)} \boxtimes S_{(4,3)}) + (S_{(5,1^2)} \boxtimes S_{(5,1^2)}) + (S_{(5,2)} \boxtimes S_{(5,2)}) + (S_{(6,1)} \boxtimes S_{(6,1)}) + (S_{(7)} \boxtimes S_{(7)})$	5040
$(0,8)$	0	0
$(1,8)$	0	0
$(2,8)$	$(S_{(2)} \boxtimes S_{(2^2,1^4)}) + (S_{(2)} \boxtimes S_{(2^4)}) + (S_{(2)} \boxtimes S_{(3,2,1^3)}) + (S_{(2)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(2)} \boxtimes S_{(3^2,1^2)}) + (S_{(2)} \boxtimes S_{(4,1^4)}) + (S_{(2)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(2)} \boxtimes S_{(4,2^2)}) + (S_{(2)} \boxtimes S_{(4,3,1)}) + (S_{(2)} \boxtimes S_{(4^2)}) + (S_{(2)} \boxtimes S_{(5,1^3)}) + (S_{(2)} \boxtimes S_{(5,2,1)}) + (S_{(2)} \boxtimes S_{(6,2)})$	720

$(3,8)$	$(S_{(1^3)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1)} \boxtimes S_{(2^2,1^4)}) + (S_{(3)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1)} \boxtimes S_{(2^3,1^2)}) + 2 \cdot (S_{(3)} \boxtimes S_{(2^3,1^2)}) + (S_{(1^3)} \boxtimes S_{(2^4)}) + (S_{(3)} \boxtimes S_{(3,1^5)}) + (S_{(1^3)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(3)} \boxtimes S_{(3,2,1^3)}) + (S_{(1^3)} \boxtimes S_{(3,2^2,1)}) + (S_{(2,1)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(3)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(3)} \boxtimes S_{(3^2,1^2)}) + (S_{(2,1)} \boxtimes S_{(3^2,2)}) + 3 \cdot (S_{(3)} \boxtimes S_{(3^2,2)}) + (S_{(1^3)} \boxtimes S_{(4,1^4)}) + (S_{(3)} \boxtimes S_{(4,1^4)}) + (S_{(1^3)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(4,2,1^2)}) + 5 \cdot (S_{(3)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(4,2^2)}) + (S_{(2,1)} \boxtimes S_{(4,2^2)}) + (S_{(3)} \boxtimes S_{(4,2^2)}) + (S_{(1^3)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(4,3,1)}) + 3 \cdot (S_{(3)} \boxtimes S_{(4,3,1)}) + (S_{(1^3)} \boxtimes S_{(4^2)}) + (S_{(1^3)} \boxtimes S_{(5,1^3)}) + (S_{(2,1)} \boxtimes S_{(5,1^3)}) + (S_{(3)} \boxtimes S_{(5,1^3)}) + (S_{(1^3)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(5,2,1)}) + 3 \cdot (S_{(3)} \boxtimes S_{(5,2,1)}) + (S_{(3)} \boxtimes S_{(5,3)}) + (S_{(2,1)} \boxtimes S_{(6,1^2)}) + (S_{(3)} \boxtimes S_{(6,1^2)}) + (S_{(1^3)} \boxtimes S_{(6,2)})$	4404
$(4,8)$	$(S_{(1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(4)} \boxtimes S_{(2^2,1^4)}) + (S_{(1^4)} \boxtimes S_{(2^3,1^2)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,1)} \boxtimes S_{(2^3,1^2)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(2^4)}) + (S_{(3,1)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(4)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3,1^5)}) + (S_{(2^2)} \boxtimes S_{(3,1^5)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(3,1^5)}) + (S_{(4)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(3,2,1^3)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^3)}) + 5 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(4)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(3,2^2,1)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(3,2^2,1)}) + 7 \cdot (S_{(3,1)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(4)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,1^2)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3^2,1^2)}) + 3 \cdot (S_{(4)} \boxtimes S_{(3^2,1^2)}) + (S_{(1^4)} \boxtimes S_{(3^2,2)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3^2,2)}) + (S_{(4)} \boxtimes S_{(3^2,2)}) + (S_{(1^4)} \boxtimes S_{(4,1^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(4,1^4)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(4,1^4)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(4,1^4)}) + 2 \cdot (S_{(4)} \boxtimes S_{(4,1^4)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(4,2,1^2)}) + 8 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2,1^2)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(4,2,1^2)}) + 6 \cdot (S_{(3,1)} \boxtimes S_{(4,2,1^2)}) + 3 \cdot (S_{(4)} \boxtimes S_{(4,2,1^2)}) + (S_{(1^4)} \boxtimes S_{(4,2^2)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2^2)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(4,2^2)}) + 5 \cdot (S_{(3,1)} \boxtimes S_{(4,2^2)}) + 4 \cdot (S_{(4)} \boxtimes S_{(4,2^2)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(4,3,1)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(4,3,1)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(4)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(4^2)}) + (S_{(3,1)} \boxtimes S_{(4^2)}) + 2 \cdot (S_{(4)} \boxtimes S_{(4^2)}) + (S_{(1^4)} \boxtimes S_{(5,1^3)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(5,1^3)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(5,1^3)}) + (S_{(3,1)} \boxtimes S_{(5,1^3)}) + (S_{(4)} \boxtimes S_{(5,1^3)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(5,2,1)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(5,2,1)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(4)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(5,3)}) + (S_{(2^2)} \boxtimes S_{(5,3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(5,3)}) + (S_{(4)} \boxtimes S_{(5,3)}) + (S_{(2,1^2)} \boxtimes S_{(6,1^2)}) + (S_{(2^2)} \boxtimes S_{(6,2)}) + (S_{(3,1)} \boxtimes S_{(6,2)}) + (S_{(4)} \boxtimes S_{(6,2)})$	22289

$(5,8)$	$(S_{(4,1)}\boxtimes S_{(1^8)})+(S_{(3,2)}\boxtimes S_{(2,1^6)})+(S_{(4,1)}\boxtimes S_{(2,1^6)})+(S_{(5)}\boxtimes S_{(2,1^6)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(2^2,1^4)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(2^2,1^4)})+2\cdot(S_{(3,2)}\boxtimes S_{(2^2,1^4)})+2\cdot(S_{(4,1)}\boxtimes S_{(2^2,1^4)})+(S_{(1^5)}\boxtimes S_{(2^3,1^2)})+(S_{(2,1^3)}\boxtimes S_{(2^3,1^2)})+3\cdot(S_{(2^2,1)}\boxtimes S_{(2^3,1^2)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(2^3,1^2)})+4\cdot(S_{(3,2)}\boxtimes S_{(2^3,1^2)})+3\cdot(S_{(4,1)}\boxtimes S_{(2^3,1^2)})+(S_{(5)}\boxtimes S_{(2^3,1^2)})+2\cdot(S_{(2,1^3)}\boxtimes S_{(2^4)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(2^4)})+(S_{(4,1)}\boxtimes S_{(2^4)})+(S_{(1^5)}\boxtimes S_{(3,1^5)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(3,1^5)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(3,1^5)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(3,1^5)})+(S_{(3,2)}\boxtimes S_{(3,1^5)})+(S_{(1^5)}\boxtimes S_{(3,2,1^3)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(3,2,1^3)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(3,2,1^3)})+7\cdot(S_{(3,1^2)}\boxtimes S_{(3,2,1^3)})+6\cdot(S_{(3,2)}\boxtimes S_{(3,2,1^3)})+4\cdot(S_{(4,1)}\boxtimes S_{(3,2,1^3)})+(S_{(5)}\boxtimes S_{(3,2,1^3)})+2\cdot(S_{(1^5)}\boxtimes S_{(3,2^2,1)})+6\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^2,1)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^2,1)})+7\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^2,1)})+5\cdot(S_{(3,2)}\boxtimes S_{(3,2^2,1)})+4\cdot(S_{(4,1)}\boxtimes S_{(3,2^2,1)})+(S_{(5)}\boxtimes S_{(3,2^2,1)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,1^2)})+4\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,1^2)})+7\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,1^2)})+5\cdot(S_{(3,2)}\boxtimes S_{(3^2,1^2)})+5\cdot(S_{(4,1)}\boxtimes S_{(3^2,1^2)})+(S_{(5)}\boxtimes S_{(3^2,1^2)})+(S_{(1^5)}\boxtimes S_{(3^2,2)})+2\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2)})+4\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,2)})+4\cdot(S_{(3,2)}\boxtimes S_{(3^2,2)})+3\cdot(S_{(4,1)}\boxtimes S_{(3^2,2)})+(S_{(5)}\boxtimes S_{(3^2,2)})+(S_{(1^5)}\boxtimes S_{(4,1^4)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(4,1^4)})+3\cdot(S_{(2^2,1)}\boxtimes S_{(4,1^4)})+4\cdot(S_{(3,1^2)}\boxtimes S_{(4,1^4)})+(S_{(3,2)}\boxtimes S_{(4,1^4)})+(S_{(4,1)}\boxtimes S_{(4,1^4)})+2\cdot(S_{(1^5)}\boxtimes S_{(4,2,1^2)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(4,2,1^2)})+7\cdot(S_{(2^2,1)}\boxtimes S_{(4,2,1^2)})+6\cdot(S_{(3,1^2)}\boxtimes S_{(4,2,1^2)})+7\cdot(S_{(3,2)}\boxtimes S_{(4,2,1^2)})+5\cdot(S_{(4,1)}\boxtimes S_{(4,2,1^2)})+2\cdot(S_{(5)}\boxtimes S_{(4,2,1^2)})+4\cdot(S_{(2,1^3)}\boxtimes S_{(4,2^2)})+3\cdot(S_{(2^2,1)}\boxtimes S_{(4,2^2)})+6\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^2)})+2\cdot(S_{(3,2)}\boxtimes S_{(4,2^2)})+(S_{(4,1)}\boxtimes S_{(4,2^2)})+(S_{(1^5)}\boxtimes S_{(4,3,1)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,1)})+4\cdot(S_{(2^2,1)}\boxtimes S_{(4,3,1)})+5\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,1)})+5\cdot(S_{(3,2)}\boxtimes S_{(4,3,1)})+5\cdot(S_{(4,1)}\boxtimes S_{(4,3,1)})+2\cdot(S_{(5)}\boxtimes S_{(4,3,1)})+(S_{(2,1^3)}\boxtimes S_{(4^2)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(4^2)})+(S_{(4,1)}\boxtimes S_{(4^2)})+(S_{(2,1^3)}\boxtimes S_{(5,1^3)})+(S_{(2^2,1)}\boxtimes S_{(5,1^3)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(5,1^3)})+2\cdot(S_{(3,2)}\boxtimes S_{(5,1^3)})+2\cdot(S_{(4,1)}\boxtimes S_{(5,1^3)})+(S_{(5)}\boxtimes S_{(5,1^3)})+(S_{(2,1^3)}\boxtimes S_{(5,2,1)})+3\cdot(S_{(2^2,1)}\boxtimes S_{(5,2,1)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(5,2,1)})+3\cdot(S_{(3,2)}\boxtimes S_{(5,2,1)})+2\cdot(S_{(4,1)}\boxtimes S_{(5,2,1)})+(S_{(5)}\boxtimes S_{(5,2,1)})+(S_{(2,1^3)}\boxtimes S_{(5,3)})+(S_{(2^2,1)}\boxtimes S_{(5,3)})+(S_{(3,1^2)}\boxtimes S_{(5,3)})+(S_{(3,2)}\boxtimes S_{(5,3)})+(S_{(4,1)}\boxtimes S_{(5,3)})+(S_{(5)}\boxtimes S_{(5,3)})+(S_{(3,2)}\boxtimes S_{(6,1^2)})+(S_{(4,1)}\boxtimes S_{(6,1^2)})+(S_{(5)}\boxtimes S_{(6,1^2)})+(S_{(3,1^2)}\boxtimes S_{(6,2)})$	67399	

$(6,8)$	$(S_{(3,1^3)} \boxtimes S_{(1^8)}) + (S_{(2^2,1^2)} \boxtimes S_{(2,1^6)}) + (S_{(3,1^3)} \boxtimes S_{(2,1^6)}) + (S_{(3,2,1)} \boxtimes S_{(2,1^6)}) + (S_{(4,1^2)} \boxtimes S_{(2,1^6)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^3)} \boxtimes S_{(2^2,1^4)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(2^2,1^4)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^4)}) + (S_{(4,1^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(4,2)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1^4)} \boxtimes S_{(2^3,1^2)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1^2)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1^2)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1^2)}) + (S_{(3^2)} \boxtimes S_{(2^3,1^2)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(2^4)}) + (S_{(3,1^3)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(2^4)}) + (S_{(4,2)} \boxtimes S_{(2^4)}) + (S_{(1^6)} \boxtimes S_{(3,1^5)}) + (S_{(2,1^4)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,1^5)}) + (S_{(2^3)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^5)}) + (S_{(3^2)} \boxtimes S_{(3,1^5)}) + (S_{(4,1^2)} \boxtimes S_{(3,1^5)}) + (S_{(4,2)} \boxtimes S_{(3,1^5)}) + (S_{(5,1)} \boxtimes S_{(3,1^5)}) + (S_{(1^6)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^3)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^3)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^3)}) + 5 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(3^2)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^3)}) + (S_{(5,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(1^6)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^2,1)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2,1)}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(3,2^2,1)}) + (S_{(5,1)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3^2,1^2)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,1^2)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(3^2,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2)}) + (S_{(4,2)} \boxtimes S_{(3^2,2)}) + (S_{(5,1)} \boxtimes S_{(3^2,2)}) + (S_{(2,1^4)} \boxtimes S_{(4,1^4)}) + (S_{(2^2,1^2)} \boxtimes S_{(4,1^4)}) + (S_{(2^3)} \boxtimes 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(S_{(5,1)} \boxtimes S_{(4,2^2)}) + (S_{(6)} \boxtimes S_{(4,2^2)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,1)}) + (S_{(2^3)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,1)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,1)}) + (S_{(3^2)} \boxtimes S_{(4,3,1)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(4,3,1)}) + (S_{(5,1)} \boxtimes S_{(4,3,1)}) + (S_{(2^3)} \boxtimes S_{(4^2)}) + (S_{(3,2,1)} \boxtimes S_{(4^2)}) + (S_{(4,2)} \boxtimes S_{(4^2)}) + (S_{(3,1^3)} \boxtimes S_{(5,1^3)}) + (S_{(3,2,1)} \boxtimes S_{(5,1^3)}) + (S_{(4,1^2)} \boxtimes S_{(5,1^3)}) + (S_{(4,2)} \boxtimes S_{(5,1^3)}) + (S_{(3,1^3)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(5,2,1)}) + (S_{(3^2)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(5,2,1)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(5,2,1)}) + (S_{(6)} \boxtimes S_{(5,2,1)}) + (S_{(3,2,1)} \boxtimes S_{(5,3)}) + (S_{(3^2)} \boxtimes S_{(5,3)}) + (S_{(4,1^2)} \boxtimes S_{(5,3)}) + (S_{(4,2)} \boxtimes S_{(5,3)}) + (S_{(5,1)} \boxtimes S_{(5,3)}) + (S_{(4,1^2)} \boxtimes S_{(6,1^2)}) + (S_{(4,2)} \boxtimes S_{(6,2)}) + (S_{(5,1)} \boxtimes S_{(6,2)}) + (S_{(6)} \boxtimes S_{(6,2)})$	110902

$(7,8)$	$(S_{(2,1^5)} \boxtimes S_{(1^8)}) + (S_{(2,1^5)} \boxtimes S_{(2,1^6)}) + (S_{(2^2,1^3)} \boxtimes S_{(2,1^6)}) + (S_{(3,1^4)} \boxtimes S_{(2,1^6)}) + (S_{(1^7)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1^5)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^3,1)} \boxtimes S_{(2^2,1^4)}) + (S_{(3,1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(3,2,1^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(2,1^5)} \boxtimes S_{(2^3,1^2)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^3,1^2)}) + (S_{(2^3,1)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,1^4)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^4)}) + (S_{(3,2,1^2)} \boxtimes S_{(2^4)}) + (S_{(2^2,1^3)} \boxtimes S_{(3,1^5)}) + (S_{(3,1^4)} \boxtimes S_{(3,1^5)}) + (S_{(3,2,1^2)} \boxtimes S_{(3,1^5)}) + (S_{(4,1^3)} \boxtimes S_{(3,1^5)}) + (S_{(2,1^5)} \boxtimes S_{(3,2,1^3)}) + (S_{(2^2,1^3)} \boxtimes S_{(3,2,1^3)}) + (S_{(2^3,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(3,1^4)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^3)}) + (S_{(3,2^2)} \boxtimes S_{(3,2,1^3)}) + (S_{(3^2,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(4,1^3)} \boxtimes S_{(3,2,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(2^2,1^3)} \boxtimes S_{(3,2^2,1)}) + (S_{(2^3,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(3,1^4)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^2,1)}) + (S_{(3,2^2)} \boxtimes S_{(3,2^2,1)}) + (S_{(3^2,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(4,1^3)} \boxtimes S_{(3,2^2,1)}) + (S_{(4,2,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(2^2,1^3)} \boxtimes S_{(3^2,1^2)}) + (S_{(2^3,1)} \boxtimes S_{(3^2,1^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3^2,1)} \boxtimes S_{(3^2,1^2)}) + (S_{(4,2,1)} \boxtimes S_{(3^2,1^2)}) + (S_{(4,3)} \boxtimes S_{(3^2,1^2)}) + (S_{(2^3,1)} \boxtimes S_{(3^2,2)}) + (S_{(3,2,1^2)} \boxtimes S_{(3^2,2)}) + (S_{(3,2^2)} \boxtimes S_{(3^2,2)}) + (S_{(4,2,1)} \boxtimes S_{(3^2,2)}) + (S_{(3,2,1^2)} \boxtimes S_{(4,1^4)}) + (S_{(4,1^3)} \boxtimes S_{(4,1^4)}) + (S_{(4,2,1)} \boxtimes S_{(4,1^4)}) + (S_{(5,1^2)} \boxtimes S_{(4,1^4)}) + (S_{(3,1^4)} \boxtimes S_{(4,2,1^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(3^2,1)} \boxtimes S_{(4,2,1^2)}) + (S_{(4,1^3)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2,1^2)}) + (S_{(4,3)} \boxtimes S_{(4,2,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(5,2)} \boxtimes S_{(4,2,1^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(4,2^2)}) + (S_{(3^2,1)} \boxtimes S_{(4,2^2)}) + (S_{(4,1^3)} \boxtimes S_{(4,2^2)}) + (S_{(4,2,1)} \boxtimes S_{(4,2^2)}) + (S_{(5,1^2)} \boxtimes S_{(4,2^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(4,3,1)}) + (S_{(3,2^2)} \boxtimes S_{(4,3,1)}) + (S_{(3^2,1)} \boxtimes S_{(4,3,1)}) + (S_{(4,2,1)} \boxtimes S_{(4,3,1)}) + (S_{(4,3)} \boxtimes S_{(4,3,1)}) + (S_{(5,2)} \boxtimes S_{(4,3,1)}) + (S_{(3^2,1)} \boxtimes S_{(4^2)}) + (S_{(4,2,1)} \boxtimes S_{(5,1^3)}) + (S_{(5,1^2)} \boxtimes S_{(5,1^3)}) + (S_{(5,2)} \boxtimes S_{(5,1^3)}) + (S_{(6,1)} \boxtimes S_{(5,1^3)}) + (S_{(4,1^3)} \boxtimes S_{(5,2,1)}) + (S_{(4,2,1)} \boxtimes S_{(5,2,1)}) + (S_{(4,3)} \boxtimes S_{(5,2,1)}) + (S_{(5,1^2)} \boxtimes S_{(5,2,1)}) + (S_{(5,2)} \boxtimes S_{(5,2,1)}) + (S_{(6,1)} \boxtimes S_{(5,2,1)}) + (S_{(4,2,1)} \boxtimes S_{(5,3)}) + (S_{(5,2)} \boxtimes S_{(6,1^2)}) + (S_{(6,1)} \boxtimes S_{(6,1^2)}) + (S_{(7)} \boxtimes S_{(6,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(6,2)})$	100801
$(8,8)$	$(S_{(1^8)} \boxtimes S_{(1^8)}) + (S_{(2,1^6)} \boxtimes S_{(2,1^6)}) + (S_{(2^2,1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^3,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(2^4)} \boxtimes S_{(2^4)}) + (S_{(3,1^5)} \boxtimes S_{(3,1^5)}) + (S_{(3,2,1^3)} \boxtimes S_{(3,2,1^3)}) + (S_{(3,2^2,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(3^2,1^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3^2,2)} \boxtimes S_{(3^2,2)}) + (S_{(4,1^4)} \boxtimes S_{(4,1^4)}) + (S_{(4,2,1^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(4,2^2)}) + (S_{(4,3,1)} \boxtimes S_{(4,3,1)}) + (S_{(4^2)} \boxtimes S_{(4^2)}) + (S_{(5,1^3)} \boxtimes S_{(5,1^3)}) + (S_{(5,2,1)} \boxtimes S_{(5,2,1)}) + (S_{(5,3)} \boxtimes S_{(5,3)}) + (S_{(6,1^2)} \boxtimes S_{(6,1^2)}) + (S_{(6,2)} \boxtimes S_{(6,2)}) + (S_{(7,1)} \boxtimes S_{(7,1)}) + (S_{(8)} \boxtimes S_{(8)})$	40320
$(0,9)$	0	0
$(1,9)$	0	0
$(2,9)$	$(S_{(2)} \boxtimes S_{(2^3,1^3)}) + (S_{(2)} \boxtimes S_{(3,1^6)}) + (S_{(2)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(2)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(2)} \boxtimes S_{(3,2^3)}) + (S_{(2)} \boxtimes S_{(3^2,1^3)}) + 2 \cdot (S_{(2)} \boxtimes S_{(3^2,2,1)}) + 2 \cdot (S_{(2)} \boxtimes S_{(3^3)}) + (S_{(2)} \boxtimes S_{(4,1^5)}) + 3 \cdot (S_{(2)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(2)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(2)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(2)} \boxtimes S_{(4,3,2)}) + (S_{(2)} \boxtimes S_{(4^2,1)}) + 3 \cdot (S_{(2)} \boxtimes S_{(5,2,1^2)}) + (S_{(2)} \boxtimes S_{(5,2^2)}) + 3 \cdot (S_{(2)} \boxtimes S_{(5,3,1)}) + (S_{(2)} \boxtimes S_{(6,1^3)}) + (S_{(2)} \boxtimes S_{(6,2,1)}) + (S_{(2)} \boxtimes S_{(6,3)}) + (S_{(2)} \boxtimes S_{(7,1^2)})$	5040

$(3,9)$	$(S_{(2,1)}\boxtimes S_{(2^2,1^5)})+2\cdot(S_{(3)}\boxtimes S_{(2^2,1^5)})+(S_{(1^3)}\boxtimes S_{(2^3,1^3)})+(S_{(2,1)}\boxtimes S_{(2^3,1^3)})+2\cdot (S_{(3)}\boxtimes S_{(2^3,1^3)})+(S_{(2,1)}\boxtimes S_{(2^4,1)})+2\cdot(S_{(3)}\boxtimes S_{(2^4,1)})+(S_{(1^3)}\boxtimes S_{(3,1^6)})+(S_{(1^3)}\boxtimes S_{(3,2,1^4)})+2\cdot(S_{(2,1)}\boxtimes S_{(3,2,1^4)})+4\cdot(S_{(3)}\boxtimes S_{(3,2,1^4)})+3\cdot(S_{(1^3)}\boxtimes S_{(3,2^2,1^2)})+2\cdot (S_{(2,1)}\boxtimes S_{(3,2^2,1^2)})+5\cdot(S_{(3)}\boxtimes S_{(3,2^2,1^2)})+(S_{(1^3)}\boxtimes S_{(3,2^3)})+2\cdot(S_{(2,1)}\boxtimes S_{(3,2^3)})+4\cdot(S_{(3)}\boxtimes S_{(3,2^3)})+(S_{(1^3)}\boxtimes S_{(3^2,1^3)})+3\cdot(S_{(2,1)}\boxtimes S_{(3^2,1^3)})+7\cdot(S_{(3)}\boxtimes S_{(3^2,1^3)})+2\cdot(S_{(1^3)}\boxtimes S_{(3^2,2,1)})+3\cdot(S_{(2,1)}\boxtimes S_{(3^2,2,1)})+6\cdot(S_{(3)}\boxtimes S_{(3^2,2,1)})+2\cdot(S_{(1^3)}\boxtimes S_{(3^3)})+(S_{(1^3)}\boxtimes S_{(4,1^5)})+(S_{(2,1)}\boxtimes S_{(4,1^5)})+2\cdot(S_{(3)}\boxtimes S_{(4,1^5)})+3\cdot(S_{(1^3)}\boxtimes S_{(4,2,1^3)})+3\cdot(S_{(2,1)}\boxtimes S_{(4,2,1^3)})+6\cdot(S_{(3)}\boxtimes S_{(4,2,1^3)})+3\cdot(S_{(1^3)}\boxtimes S_{(4,2^2,1)})+4\cdot(S_{(2,1)}\boxtimes S_{(4,2^2,1)})+8\cdot(S_{(3)}\boxtimes S_{(4,2^2,1)})+3\cdot(S_{(1^3)}\boxtimes S_{(4,3,1^2)})+4\cdot(S_{(2,1)}\boxtimes S_{(4,3,1^2)})+8\cdot(S_{(3)}\boxtimes S_{(4,3,1^2)})+2\cdot(S_{(1^3)}\boxtimes S_{(4,3,2)})+3\cdot(S_{(2,1)}\boxtimes S_{(4,3,2)})+6\cdot(S_{(3)}\boxtimes S_{(4,3,2)})+(S_{(1^3)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(2,1)}\boxtimes S_{(4^2,1)})+4\cdot(S_{(3)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(2,1)}\boxtimes S_{(5,1^4)})+4\cdot(S_{(3)}\boxtimes S_{(5,1^4)})+3\cdot(S_{(1^3)}\boxtimes S_{(5,2,1^2)})+3\cdot(S_{(2,1)}\boxtimes S_{(5,2,1^2)})+6\cdot(S_{(3)}\boxtimes S_{(5,2,1^2)})+(S_{(1^3)}\boxtimes S_{(5,2^2)})+3\cdot(S_{(2,1)}\boxtimes S_{(5,2^2)})+6\cdot(S_{(3)}\boxtimes S_{(5,2^2)})+3\cdot(S_{(1^3)}\boxtimes S_{(5,3,1)})+2\cdot(S_{(2,1)}\boxtimes S_{(5,3,1)})+4\cdot(S_{(3)}\boxtimes S_{(5,3,1)})+(S_{(2,1)}\boxtimes S_{(5,4)})+(S_{(3)}\boxtimes S_{(5,4)})+(S_{(1^3)}\boxtimes S_{(6,1^3)})+(S_{(2,1)}\boxtimes S_{(6,1^3)})+2\cdot(S_{(3)}\boxtimes S_{(6,1^3)})+(S_{(1^3)}\boxtimes S_{(6,2,1)})+2\cdot(S_{(2,1)}\boxtimes S_{(6,2,1)})+3\cdot(S_{(3)}\boxtimes S_{(6,2,1)})+(S_{(1^3)}\boxtimes S_{(6,3)})+(S_{(2,1)}\boxtimes S_{(6,3)})+2\cdot(S_{(3)}\boxtimes S_{(6,3)})+(S_{(1^3)}\boxtimes S_{(7,1^2)})+(S_{(2,1)}\boxtimes S_{(7,2)})+(S_{(3)}\boxtimes S_{(7,2)})$	31068
$(4,9)$	$(S_{(1^4)}\boxtimes S_{(2^2,1^5)})+3\cdot(S_{(2,1^2)}\boxtimes S_{(2^2,1^5)})+(S_{(3,1)}\boxtimes S_{(2^2,1^5)})+(S_{(1^4)}\boxtimes S_{(2^3,1^3)})+3\cdot(S_{(2,1^2)}\boxtimes S_{(2^3,1^3)})+3\cdot(S_{(2^2)}\boxtimes S_{(2^3,1^3)})+4\cdot(S_{(3,1)}\boxtimes S_{(2^3,1^3)})+2\cdot(S_{(4)}\boxtimes S_{(2^3,1^3)})+2\cdot(S_{(1^4)}\boxtimes S_{(2^4,1)})+3\cdot(S_{(2,1^2)}\boxtimes S_{(2^4,1)})+2\cdot(S_{(3,1)}\boxtimes S_{(2^4,1)})+(S_{(4)}\boxtimes S_{(2^4,1)})+2\cdot(S_{(2^2)}\boxtimes S_{(3,1^6)})+2\cdot(S_{(3,1)}\boxtimes S_{(3,1^6)})+2\cdot(S_{(4)}\boxtimes S_{(3,1^6)})+3\cdot(S_{(1^4)}\boxtimes S_{(3,2,1^4)})+6\cdot(S_{(2,1^2)}\boxtimes S_{(3,2,1^4)})+3\cdot(S_{(2^2)}\boxtimes S_{(3,2,1^4)})+6\cdot(S_{(3,1)}\boxtimes S_{(3,2,1^4)})+4\cdot(S_{(4)}\boxtimes S_{(3,2,1^4)})+3\cdot(S_{(1^4)}\boxtimes S_{(3,2^2,1^2)})+7\cdot(S_{(2,1^2)}\boxtimes S_{(3,2^2,1^2)})+8\cdot(S_{(2^2)}\boxtimes S_{(3,2^2,1^2)})+11\cdot(S_{(3,1)}\boxtimes S_{(3,2^2,1^2)})+8\cdot(S_{(4)}\boxtimes S_{(3,2^2,1^2)})+2\cdot(S_{(1^4)}\boxtimes S_{(3,2^3)})+5\cdot(S_{(2,1^2)}\boxtimes S_{(3,2^3)})+2\cdot(S_{(2^2)}\boxtimes S_{(3,2^3)})+4\cdot(S_{(3,1)}\boxtimes S_{(3,2^3)})+2\cdot(S_{(4)}\boxtimes S_{(3,2^3)})+4\cdot(S_{(1^4)}\boxtimes S_{(3^2,1^3)})+10\cdot(S_{(2,1^2)}\boxtimes S_{(3^2,1^3)})+2\cdot(S_{(2^2)}\boxtimes S_{(3^2,1^3)})+5\cdot(S_{(3,1)}\boxtimes S_{(3^2,1^3)})+2\cdot(S_{(4)}\boxtimes S_{(3^2,1^3)})+4\cdot(S_{(1^4)}\boxtimes S_{(3^2,2,1)})+9\cdot(S_{(2,1^2)}\boxtimes S_{(3^2,2,1)})+6\cdot(S_{(2^2)}\boxtimes S_{(3^2,2,1)})+10\cdot(S_{(3,1)}\boxtimes S_{(3^2,2,1)})+7\cdot(S_{(4)}\boxtimes S_{(3^2,2,1)})+4\cdot(S_{(2^2)}\boxtimes S_{(3^3)})+5\cdot(S_{(3,1)}\boxtimes S_{(3^3)})+3\cdot(S_{(4)}\boxtimes S_{(3^3)})+(S_{(1^4)}\boxtimes S_{(4,1^5)})+2\cdot(S_{(2,1^2)}\boxtimes S_{(4,1^5)})+2\cdot(S_{(2^2)}\boxtimes S_{(4,1^5)})+3\cdot(S_{(3,1)}\boxtimes S_{(4,1^5)})+2\cdot(S_{(4)}\boxtimes S_{(4,1^5)})+4\cdot(S_{(1^4)}\boxtimes S_{(4,2,1^3)})+9\cdot(S_{(2,1^2)}\boxtimes S_{(4,2,1^3)})+8\cdot(S_{(2^2)}\boxtimes S_{(4,2,1^3)})+12\cdot(S_{(3,1)}\boxtimes S_{(4,2,1^3)})+8\cdot(S_{(4)}\boxtimes S_{(4,2,1^3)})+5\cdot(S_{(1^4)}\boxtimes S_{(4,2^2,1)})+11\cdot(S_{(2,1^2)}\boxtimes S_{(4,2^2,1)})+7\cdot(S_{(2^2)}\boxtimes S_{(4,2^2,1)})+11\cdot(S_{(3,1)}\boxtimes S_{(4,2^2,1)})+8\cdot(S_{(4)}\boxtimes S_{(4,2^2,1)})+5\cdot(S_{(1^4)}\boxtimes S_{(4,3,1^2)})+12\cdot(S_{(2,1^2)}\boxtimes S_{(4,3,1^2)})+8\cdot(S_{(2^2)}\boxtimes S_{(4,3,1^2)})+12\cdot(S_{(3,1)}\boxtimes S_{(4,3,1^2)})+8\cdot(S_{(4)}\boxtimes S_{(4,3,1^2)})+4\cdot(S_{(1^4)}\boxtimes S_{(4,3,2)})+9\cdot(S_{(2,1^2)}\boxtimes S_{(4,3,2)})+5\cdot(S_{(2^2)}\boxtimes S_{(4,3,2)})+8\cdot(S_{(3,1)}\boxtimes S_{(4,3,2)})+6\cdot(S_{(4)}\boxtimes S_{(4,3,2)})+2\cdot(S_{(1^4)}\boxtimes S_{(4^2,1)})+5\cdot(S_{(2,1^2)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(2^2)}\boxtimes S_{(4^2,1)})+3\cdot(S_{(3,1)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(4)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(1^4)}\boxtimes S_{(5,1^4)})+6\cdot(S_{(2,1^2)}\boxtimes S_{(5,1^4)})+(S_{(2^2)}\boxtimes S_{(5,1^4)})+2\cdot(S_{(3,1)}\boxtimes S_{(5,1^4)})+(S_{(4)}\boxtimes S_{(5,1^4)})+4\cdot(S_{(1^4)}\boxtimes S_{(5,2,1^2)})+10\cdot(S_{(2,1^2)}\boxtimes S_{(5,2,1^2)})+8\cdot(S_{(2^2)}\boxtimes S_{(5,2,1^2)})+11\cdot(S_{(3,1)}\boxtimes S_{(5,2,1^2)})+7\cdot(S_{(4)}\boxtimes S_{(5,2,1^2)})+3\cdot(S_{(1^4)}\boxtimes S_{(5,2^2)})+9\cdot(S_{(2,1^2)}\boxtimes S_{(5,2^2)})+2\cdot(S_{(2^2)}\boxtimes S_{(5,2^2)})+4\cdot(S_{(3,1)}\boxtimes S_{(5,2^2)})+2\cdot(S_{(4)}\boxtimes S_{(5,2^2)})+2\cdot(S_{(1^4)}\boxtimes S_{(5,3,1)})+7\cdot(S_{(2,1^2)}\boxtimes S_{(5,3,1)})+7\cdot(S_{(2^2)}\boxtimes S_{(5,3,1)})+9\cdot(S_{(3,1)}\boxtimes S_{(5,3,1)})+7\cdot(S_{(4)}\boxtimes S_{(5,3,1)})+(S_{(1^4)}\boxtimes S_{(5,4)})+2\cdot(S_{(2,1^2)}\boxtimes S_{(5,4)})+(S_{(3,1)}\boxtimes S_{(5,4)})+(S_{(4)}\boxtimes S_{(5,4)})+(S_{(1^4)}\boxtimes S_{(6,1^3)})+3\cdot(S_{(2,1^2)}\boxtimes S_{(6,1^3)})+2\cdot(S_{(2^2)}\boxtimes S_{(6,1^3)})+2\cdot(S_{(3,1)}\boxtimes S_{(6,1^3)})+(S_{(4)}\boxtimes S_{(6,1^3)})+2\cdot(S_{(1^4)}\boxtimes S_{(6,2,1)})+5\cdot(S_{(2,1^2)}\boxtimes S_{(6,2,1)})+3\cdot(S_{(2^2)}\boxtimes S_{(6,2,1)})+4\cdot(S_{(3,1)}\boxtimes S_{(6,2,1)})+3\cdot(S_{(4)}\boxtimes S_{(6,2,1)})+(S_{(1^4)}\boxtimes S_{(6,3)})+2\cdot(S_{(2,1^2)}\boxtimes S_{(6,3)})+(S_{(2^2)}\boxtimes S_{(6,3)})+(S_{(3,1)}\boxtimes S_{(6,3)})+(S_{(4)}\boxtimes S_{(6,3)})+(S_{(2^2)}\boxtimes S_{(7,1^2)})+(S_{(3,1)}\boxtimes S_{(7,1^2)})+(S_{(4)}\boxtimes S_{(7,1^2)})+(S_{(2,1^2)}\boxtimes S_{(7,2)})$	162976

| $(5,9)$ | $(S_{(5)} \boxtimes S_{(1^9)}) + (S_{(1^5)} \boxtimes S_{(2^2,1^5)}) + (S_{(2,1^3)} \boxtimes S_{(2^2,1^5)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(2^2,1^5)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(2^2,1^5)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(2^2,1^5)}) + (S_{(5)} \boxtimes S_{(2^2,1^5)}) + (S_{(1^5)} \boxtimes S_{(2^3,1^3)}) + 4 \cdot (S_{(2,1^3)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(2^2,1)} \boxtimes S_{(2^3,1^3)}) + 4 \cdot (S_{(3,1^2)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(2^3,1^3)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(2^3,1^3)}) + (S_{(5)} \boxtimes S_{(2^3,1^3)}) + (S_{(1^5)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(2^4,1)}) + 5 \cdot (S_{(2^2,1)} \boxtimes S_{(2^4,1)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(2^4,1)}) + 4 \cdot (S_{(3,2)} \boxtimes S_{(2^4,1)}) + 3 \cdot (S_{(4,1)} \boxtimes S_{(2^4,1)}) + (S_{(5)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(3,1^6)}) + 5 \cdot (S_{(3,1^2)} \boxtimes S_{(3,1^6)}) + (S_{(3,2)} \boxtimes S_{(3,1^6)}) + (S_{(4,1)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(3,2,1^4)}) + 6 \cdot (S_{(2,1^3)} \boxtimes S_{(3,2,1^4)}) + 9 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2,1^4)}) + 10 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2,1^4)}) + 9 \cdot (S_{(3,2)} \boxtimes S_{(3,2,1^4)}) + 7 \cdot (S_{(4,1)} \boxtimes S_{(3,2,1^4)}) + 2 \cdot (S_{(5)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(3,2^2,1^2)}) + 12 \cdot (S_{(2,1^3)} \boxtimes S_{(3,2^2,1^2)}) + 12 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2^2,1^2)}) + 19 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2^2,1^2)}) + 11 \cdot (S_{(3,2)} \boxtimes S_{(3,2^2,1^2)}) + 9 \cdot (S_{(4,1)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(5)} \boxtimes S_{(3,2^2,1^2)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(3,2^3)}) + 5 \cdot (S_{(2,1^3)} \boxtimes S_{(3,2^3)}) + 7 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2^3)}) + 7 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2^3)}) + 9 \cdot (S_{(3,2)} \boxtimes S_{(3,2^3)}) + 7 \cdot (S_{(4,1)} \boxtimes S_{(3,2^3)}) + 3 \cdot (S_{(5)} \boxtimes S_{(3,2^3)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(3^2,1^3)}) + 5 \cdot (S_{(2,1^3)} \boxtimes S_{(3^2,1^3)}) + 11 \cdot (S_{(2^2,1)} \boxtimes S_{(3^2,1^3)}) + 7 \cdot (S_{(3,1^2)} \boxtimes S_{(3^2,1^3)}) + 12 \cdot (S_{(3,2)} \boxtimes S_{(3^2,1^3)}) + 9 \cdot (S_{(4,1)} \boxtimes S_{(3^2,1^3)}) + 4 \cdot (S_{(5)} \boxtimes S_{(3^2,1^3)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(3^2,2,1)}) + 11 \cdot (S_{(2,1^3)} \boxtimes S_{(3^2,2,1)}) + 12 \cdot (S_{(2^2,1)} \boxtimes S_{(3^2,2,1)}) + 15 \cdot (S_{(3,1^2)} \boxtimes S_{(3^2,2,1)}) + 12 \cdot (S_{(3,2)} \boxtimes S_{(3^2,2,1)}) + 10 \cdot (S_{(4,1)} \boxtimes S_{(3^2,2,1)}) + 3 \cdot (S_{(5)} \boxtimes S_{(3^2,2,1)}) + 4 \cdot (S_{(2,1^3)} \boxtimes S_{(3^3)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(3^3)}) + 6 \cdot (S_{(3,1^2)} \boxtimes S_{(3^3)}) + (S_{(4,1)} \boxtimes S_{(3^3)}) + (S_{(1^5)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(2,1^3)} \boxtimes S_{(4,1^5)}) + 5 \cdot (S_{(2^2,1)} \boxtimes S_{(4,1^5)}) + 6 \cdot (S_{(3,1^2)} \boxtimes S_{(4,1^5)}) + 5 \cdot (S_{(3,2)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(4,1)} \boxtimes S_{(4,1^5)}) + (S_{(5)} \boxtimes S_{(4,1^5)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(4,2,1^3)}) + 13 \cdot (S_{(2,1^3)} \boxtimes S_{(4,2,1^3)}) + 14 \cdot (S_{(2^2,1)} \boxtimes S_{(4,2,1^3)}) + 18 \cdot (S_{(3,1^2)} \boxtimes S_{(4,2,1^3)}) + 13 \cdot (S_{(3,2)} \boxtimes S_{(4,2,1^3)}) + 10 \cdot (S_{(4,1)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(5)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(4,2^2,1)}) + 12 \cdot (S_{(2,1^3)} \boxtimes S_{(4,2^2,1)}) + 16 \cdot (S_{(2^2,1)} \boxtimes S_{(4,2^2,1)}) + 19 \cdot (S_{(3,1^2)} \boxtimes S_{(4,2^2,1)}) + 16 \cdot (S_{(3,2)} \boxtimes S_{(4,2^2,1)}) + 13 \cdot (S_{(4,1)} \boxtimes S_{(4,2^2,1)}) + 4 \cdot (S_{(5)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(1^5)} \boxtimes S_{(4,3,1^2)}) + 12 \cdot (S_{(2,1^3)} \boxtimes S_{(4,3,1^2)}) + 14 \cdot (S_{(2^2,1)} \boxtimes S_{(4,3,1^2)}) + 17 \cdot (S_{(3,1^2)} \boxtimes S_{(4,3,1^2)}) + 14 \cdot (S_{(3,2)} \boxtimes S_{(4,3,1^2)}) + 11 \cdot (S_{(4,1)} \boxtimes S_{(4,3,1^2)}) + 4 \cdot (S_{(5)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(4,3,2)}) + 8 \cdot (S_{(2,1^3)} \boxtimes S_{(4,3,2)}) + 11 \cdot (S_{(2^2,1)} \boxtimes S_{(4,3,2)}) + 13 \cdot (S_{(3,1^2)} \boxtimes S_{(4,3,2)}) + 11 \cdot (S_{(3,2)} \boxtimes S_{(4,3,2)}) + 9 \cdot (S_{(4,1)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(5)} \boxtimes S_{(4,3,2)}) + (S_{(1^5)} \boxtimes S_{(4^2,1)}) + 3 \cdot (S_{(2,1^3)} \boxtimes S_{(4^2,1)}) + 5 \cdot (S_{(2^2,1)} \boxtimes S_{(4^2,1)}) + 5 \cdot (S_{(3,1^2)} \boxtimes S_{(4^2,1)}) + 6 \cdot (S_{(3,2)} \boxtimes S_{(4^2,1)}) + 6 \cdot (S_{(4,1)} \boxtimes S_{(4^2,1)}) + 3 \cdot (S_{(5)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(5,1^4)}) + 3 \cdot (S_{(2,1^3)} \boxtimes S_{(5,1^4)}) + 5 \cdot (S_{(2^2,1)} \boxtimes S_{(5,1^4)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(5,1^4)}) + 6 \cdot (S_{(3,2)} \boxtimes S_{(5,1^4)}) + 4 \cdot (S_{(4,1)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(5)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(5,2,1^2)}) + 9 \cdot (S_{(2,1^3)} \boxtimes S_{(5,2,1^2)}) + 11 \cdot (S_{(2^2,1)} \boxtimes S_{(5,2,1^2)}) + 13 \cdot (S_{(3,1^2)} \boxtimes S_{(5,2,1^2)}) + 9 \cdot (S_{(3,2)} \boxtimes S_{(5,2,1^2)}) + 7 \cdot (S_{(4,1)} \boxtimes S_{(5,2,1^2)}) + 3 \cdot (S_{(5)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(5,2^2)}) + 4 \cdot (S_{(2,1^3)} \boxtimes S_{(5,2^2)}) + 7 \cdot (S_{(2^2,1)} \boxtimes S_{(5,2^2)}) + 5 \cdot (S_{(3,1^2)} \boxtimes S_{(5,2^2)}) + 9 \cdot (S_{(3,2)} \boxtimes S_{(5,2^2)}) + 7 \cdot (S_{(4,1)} \boxtimes S_{(5,2^2)}) + 4 \cdot (S_{(5)} \boxtimes S_{(5,2^2)}) + (S_{(1^5)} \boxtimes S_{(5,3,1)}) + 7 \cdot (S_{(2,1^3)} \boxtimes S_{(5,3,1)}) + 7 \cdot (S_{(2^2,1)} \boxtimes S_{(5,3,1)}) + 12 \cdot (S_{(3,1^2)} \boxtimes S_{(5,3,1)}) + 7 \cdot (S_{(3,2)} \boxtimes S_{(5,3,1)}) + 6 \cdot (S_{(4,1)} \boxtimes S_{(5,3,1)}) + 2 \cdot (S_{(5)} \boxtimes S_{(5,3,1)}) + (S_{(2,1^3)} \boxtimes S_{(5,4)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(5,4)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(5,4)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(5,4)}) + 3 \cdot (S_{(4,1)} \boxtimes S_{(5,4)}) + 2 \cdot (S_{(5)} \boxtimes S_{(5,4)}) + (S_{(2,1^3)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(6,1^3)}) + (S_{(4,1)} \boxtimes S_{(6,1^3)}) + (S_{(5)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(6,2,1)}) + 3 \cdot (S_{(2^2,1)} \boxtimes S_{(6,2,1)}) + 4 \cdot (S_{(3,1^2)} \boxtimes S_{(6,2,1)}) + 4 \cdot (S_{(3,2)} \boxtimes S_{(6,2,1)}) + 3 \cdot (S_{(4,1)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(5)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(6,3)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(6,3)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(6,3)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(6,3)}) + (S_{(5)} \boxtimes S_{(6,3)}) + (S_{(3,1^2)} \boxtimes S_{(7,1^2)}) + (S_{(3,2)} \boxtimes S_{(7,2)}) + (S_{(4,1)} \boxtimes S_{(7,2)}) + (S_{(5)} \boxtimes S_{(7,2)})$ | 579449 |

$(6,9)$	$(S_{(4,1^2)} \boxtimes S_{(1^9)}) + (S_{(3,2,1)} \boxtimes S_{(2,1^7)}) + (S_{(4,1^2)} \boxtimes S_{(2,1^7)}) + (S_{(4,2)} \boxtimes S_{(2,1^7)}) + (S_{(5,1)} \boxtimes S_{(2,1^7)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^5)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(2^2,1^5)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^5)}) + (S_{(3^2)} \boxtimes S_{(2^2,1^5)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(2^2,1^5)}) + (S_{(4,2)} \boxtimes S_{(2^2,1^5)}) + (S_{(5,1)} \boxtimes S_{(2^2,1^5)}) + (S_{(1^6)} \boxtimes S_{(2^3,1^3)}) + (S_{(2,1^4)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1^3)}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1^3)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(2^3,1^3)}) + 4 \cdot (S_{(4,1^2)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(2^3,1^3)}) + (S_{(5,1)} \boxtimes S_{(2^3,1^3)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(2^4,1)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^4,1)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(2^4,1)}) + 5 \cdot (S_{(3,2,1)} \boxtimes S_{(2^4,1)}) + (S_{(3^2)} \boxtimes S_{(2^4,1)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(2^4,1)}) + (S_{(5,1)} \boxtimes S_{(2^4,1)}) + (S_{(1^6)} \boxtimes S_{(3,1^6)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^6)}) + (S_{(3^2)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(3,1^6)}) + (S_{(5,1)} \boxtimes S_{(3,1^6)}) + (S_{(6)} \boxtimes S_{(3,1^6)}) + (S_{(1^6)} \boxtimes S_{(3,2,1^4)}) + 5 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^4)}) + 8 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^4)}) + 8 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^4)}) + 11 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^4)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^4)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^4)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^4)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(3,2,1^4)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3,2^2,1^2)}) + 8 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^2,1^2)}) + 10 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2,1^2)}) + 7 \cdot (S_{(2^3)} \boxtimes S_{(3,2^2,1^2)}) + 10 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2,1^2)}) + 16 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2,1^2)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(3,2^2,1^2)}) + 7 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2,1^2)}) + 9 \cdot (S_{(4,2)} \boxtimes S_{(3,2^2,1^2)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(6)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(1^6)} \boxtimes S_{(3,2^3)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^3)}) + 6 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,2^3)}) + 7 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^3)}) + 7 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3,2^3)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(3,2^3)}) + (S_{(5,1)} \boxtimes S_{(3,2^3)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,1^3)}) + 7 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1^3)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3^2,1^3)}) + 10 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,1^3)}) + 11 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1^3)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(3^2,1^3)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,1^3)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(3^2,1^3)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(3^2,1^3)}) + (S_{(1^6)} \boxtimes S_{(3^2,2,1)}) + 5 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,2,1)}) + 9 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2,1)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(3^2,2,1)}) + 9 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2,1)}) + 16 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2,1)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2,1)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2,1)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(3^2,2,1)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3^2,2,1)}) + (S_{(1^6)} \boxtimes S_{(3^3)}) + (S_{(2,1^4)} \boxtimes S_{(3^3)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^3)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(3^3)}) + (S_{(3,1^3)} \boxtimes S_{(3^3)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(3^3)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3^3)}) + (S_{(4,1^2)} \boxtimes S_{(3^3)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(3^3)}) + (S_{(5,1)} \boxtimes S_{(3^3)}) + (S_{(6)} \boxtimes S_{(3^3)}) + (S_{(1^6)} \boxtimes S_{(4,1^5)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,1^5)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(4,1^5)}) + (S_{(3^2)} \boxtimes S_{(4,1^5)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(4,1^5)}) + (S_{(4,2)} \boxtimes S_{(4,1^5)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(4,2,1^3)}) + 6 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2,1^3)}) + 10 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2,1^3)}) + 6 \cdot (S_{(2^3)} \boxtimes S_{(4,2,1^3)}) + 9 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2,1^3)}) + 15 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2,1^3)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(4,2,1^3)}) + 8 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2,1^3)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(4,2,1^3)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(4,2,1^3)}) + (S_{(6)} \boxtimes S_{(4,2,1^3)}) + (S_{(1^6)} \boxtimes S_{(4,2^2,1)}) + 6 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2^2,1)}) + 10 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2^2,1)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,2^2,1)}) + 11 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2^2,1)}) + 16 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^2,1)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(4,2^2,1)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^2,1)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(4,2^2,1)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(4,2^2,1)}) + (S_{(6)} \boxtimes S_{(4,2^2,1)}) + (S_{(1^6)} \boxtimes S_{(4,3,1^2)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(4,3,1^2)}) + 8 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,1^2)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,3,1^2)}) + 9 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,1^2)}) + 16 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,1^2)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(4,3,1^2)}) + 11 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3,1^2)}) + 10 \cdot (S_{(4,2)} \boxtimes S_{(4,3,1^2)}) + 6 \cdot (S_{(5,1)} \boxtimes S_{(4,3,1^2)}) + (S_{(6)} \boxtimes S_{(4,3,1^2)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(4,3,2)}) + 6 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(4,3,2)}) + 7 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,2)}) + 12 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,2)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(4,3,2)}) + 7 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3,2)}) + 7 \cdot (S_{(4,2)} \boxtimes S_{(4,3,2)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(4,3,2)}) + (S_{(6)} \boxtimes S_{(4,3,2)}) + (S_{(2,1^4)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4^2,1)}) + (S_{(2^3)} \boxtimes S_{(4^2,1)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(4^2,1)}) + 5 \cdot (S_{(3,2,1)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(4^2,1)}) + 5 \cdot (S_{(4,1^2)} \boxtimes S_{(4^2,1)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(4^2,1)}) + (S_{(2,1^4)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(5,1^4)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(5,1^4)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(5,1^4)}) + (S_{(3^2)} \boxtimes S_{(5,1^4)}) + 4 \cdot (S_{(4,1^2)} \boxtimes S_{(5,1^4)}) + (S_{(4,2)} \boxtimes S_{(5,1^4)}) + (S_{(5,1)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(5,2,1^2)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(5,2,1^2)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(5,2,1^2)}) + 5 \cdot (S_{(3,1^3)} \boxtimes S_{(5,2,1^2)}) + 10 \cdot (S_{(3,2,1)} \boxtimes S_{(5,2,1^2)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(5,2,1^2)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(5,2,1^2)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(5,2,1^2)}) + 5 \cdot (S_{(5,1)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(6)} \boxtimes S_{(5,2,1^2)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(5,2^2)}) + (S_{(2^3)} \boxtimes S_{(5,2^2)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(5,2^2)}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(5,2^2)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(5,2^2)}) + \cdots$	1179714

$(6,9)$	$\cdots + (S_{(5,1)} \boxtimes S_{(5,2^2)}) + (S_{(2,1^4)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(5,3,1)}) + 8 \cdot (S_{(3,2,1)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(5,3,1)}) + 5 \cdot (S_{(4,1^2)} \boxtimes S_{(5,3,1)}) + 7 \cdot (S_{(4,2)} \boxtimes S_{(5,3,1)}) + 5 \cdot (S_{(5,1)} \boxtimes S_{(5,3,1)}) + 2 \cdot (S_{(6)} \boxtimes S_{(5,3,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,4)}) + (S_{(3,1^3)} \boxtimes S_{(5,4)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(5,4)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(5,4)}) + (S_{(4,2)} \boxtimes S_{(5,4)}) + (S_{(5,1)} \boxtimes S_{(5,4)}) + (S_{(3,1^3)} \boxtimes S_{(6,1^3)}) + (S_{(3,2,1)} \boxtimes S_{(6,1^3)}) + (S_{(3^2)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(6,1^3)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(6,1^3)}) + (S_{(6)} \boxtimes S_{(6,1^3)}) + (S_{(3,1^3)} \boxtimes S_{(6,2,1)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(6,2,1)}) + (S_{(3^2)} \boxtimes S_{(6,2,1)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(6,2,1)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(6,2,1)}) + (S_{(6)} \boxtimes S_{(6,2,1)}) + (S_{(3,1^3)} \boxtimes S_{(6,3)}) + (S_{(3,2,1)} \boxtimes S_{(6,3)}) + (S_{(3^2)} \boxtimes S_{(6,3)}) + (S_{(4,1^2)} \boxtimes S_{(6,3)}) + (S_{(4,2)} \boxtimes S_{(6,3)}) + (S_{(5,1)} \boxtimes S_{(6,3)}) + (S_{(6)} \boxtimes S_{(6,3)}) + (S_{(4,2)} \boxtimes S_{(7,1^2)}) + (S_{(5,1)} \boxtimes S_{(7,1^2)}) + (S_{(6)} \boxtimes S_{(7,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(7,2)})$	1179714
$(7,9)$	$(S_{(3,1^4)} \boxtimes S_{(1^9)}) + (S_{(2^2,1^3)} \boxtimes S_{(2,1^7)}) + (S_{(3,1^4)} \boxtimes S_{(2,1^7)}) + (S_{(3,2,1^2)} \boxtimes S_{(2,1^7)}) + (S_{(4,1^3)} \boxtimes S_{(2,1^7)}) + 2 \cdot (S_{(2,1^5)} \boxtimes S_{(2^2,1^5)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^5)}) + (S_{(2^3,1)} \boxtimes S_{(2^2,1^5)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(2^2,1^5)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^2,1^5)}) + (S_{(3^2)} \boxtimes S_{(2^2,1^5)}) + (S_{(4,1^3)} \boxtimes S_{(2^2,1^5)}) + (S_{(4,2,1)} \boxtimes S_{(2^2,1^5)}) + (S_{(2,1^5)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^3,1^3)}) + (S_{(2^3,1)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(2^3,1^3)}) + 4 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^3,1^3)}) + (S_{(3^2)} \boxtimes S_{(2^3,1^3)}) + (S_{(3^2,1)} \boxtimes S_{(2^3,1^3)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(2^3,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(2^3,1^3)}) + (S_{(2,1^5)} \boxtimes S_{(2^4,1)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(2^4,1)}) + 3 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^4,1)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(2^4,1)}) + (S_{(3^2,1)} \boxtimes S_{(2^4,1)}) + (S_{(4,1^3)} \boxtimes S_{(2^4,1)}) + (S_{(4,2,1)} \boxtimes S_{(2^4,1)}) + (S_{(1^7)} \boxtimes S_{(3,1^6)}) + (S_{(2,1^5)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,1^6)}) + (S_{(2^3,1)} \boxtimes S_{(3,1^6)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,1^6)}) + (S_{(3^2,1)} \boxtimes S_{(3,1^6)}) + (S_{(4,1^3)} \boxtimes S_{(3,1^6)}) + (S_{(4,2,1)} \boxtimes S_{(3,1^6)}) + (S_{(5,1^2)} \boxtimes S_{(3,1^6)}) + (S_{(1^7)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(2,1^5)} \boxtimes S_{(3,2,1^4)}) + 4 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2,1^4)}) + 4 \cdot (S_{(3,1^4)} \boxtimes S_{(3,2,1^4)}) + 5 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^4)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2,1^4)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2,1^4)}) + (S_{(4,3)} \boxtimes S_{(3,2,1^4)}) + (S_{(5,1^2)} \boxtimes S_{(3,2,1^4)}) + (S_{(5,2)} \boxtimes S_{(3,2,1^4)}) + (S_{(1^7)} \boxtimes S_{(3,2^2,1^2)}) + 2 \cdot (S_{(2,1^5)} \boxtimes S_{(3,2^2,1^2)}) + 5 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2^2,1^2)}) + 4 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^2,1^2)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^2,1^2)}) + 9 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^2,1^2)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(3,2^2,1^2)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^2,1^2)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^2,1^2)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(4,3)} \boxtimes S_{(3,2^2,1^2)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(2,1^5)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^3)}) + 2 \cdot 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\boxtimes S_{(3^2,2,1)}) + 7 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2,1)}) + 4 \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2,1)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,2,1)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2,1)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,2,1)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(3^2,2,1)}) + (S_{(5,1^2)} \boxtimes S_{(3^2,2,1)}) + (S_{(5,2)} \boxtimes S_{(3^2,2,1)}) + (S_{(2^2,1^3)} \boxtimes S_{(3^3)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^3)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(3^3)}) + (S_{(4,1^3)} \boxtimes S_{(3^3)}) + (S_{(4,2,1)} \boxtimes S_{(3^3)}) + (S_{(5,1^2)} \boxtimes S_{(3^3)}) + (S_{(2,1^5)} \boxtimes S_{(4,1^5)}) + (S_{(2^2,1^3)} \boxtimes S_{(4,1^5)}) + (S_{(2^3,1)} \boxtimes S_{(4,1^5)}) + (S_{(3,1^4)} \boxtimes S_{(4,1^5)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,1^5)}) + (S_{(3,2^2)} \boxtimes S_{(4,1^5)}) + (S_{(3^2,1)} \boxtimes S_{(4,1^5)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(4,1^5)}) + (S_{(4,3)} \boxtimes S_{(4,1^5)}) + (S_{(5,1^2)} \boxtimes S_{(4,1^5)}) + (S_{(5,2)} \boxtimes S_{(4,1^5)}) + (S_{(6,1)} \boxtimes S_{(4,1^5)}) + (S_{(2,1^5)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2,1^3)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(4,2,1^3)}) + 6 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(3,2^2)} \boxtimes S_{(4,2,1^3)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(4,2,1^3)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(4,2,1^3)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2,1^3)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(4,2,1^3)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,2,1^3)}) + (S_{(6,1)} \boxtimes S_{(4,2,1^3)}) + (S_{(2,1^5)} \boxtimes S_{(4,2^2,1)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(2^3,1)} \boxtimes S_{(4,2^2,1)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(4,2^2,1)}) + 6 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2^2,1)}) + 4 \cdot (S_{(3,2^2)} \boxtimes S_{(4,2^2,1)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(4,2^2,1)}) + 7 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(4,3)} \boxtimes S_{(4,2^2,1)}) + \cdots$	1481789

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| $(7,9)$ | $\cdots + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(4,2^2,1)}) + (S_{(6,1)} \boxtimes S_{(4,2^2,1)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(4,3,1^2)}) + 6 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3,1^2)}) + 4 \cdot (S_{(3,2^2)} \boxtimes S_{(4,3,1^2)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(4,3,1^2)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(4,3,1^2)}) + 6 \cdot (S_{(4,2,1)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,3,1^2)}) + (S_{(2^2,1^3)} \boxtimes S_{(4,3,2)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(4,3,2)}) + (S_{(3,1^4)} \boxtimes S_{(4,3,2)}) + 4 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(3,2^2)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(4,3,2)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(4,3,2)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(4,3)} \boxtimes S_{(4,3,2)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(4,3,2)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,3,2)}) + (S_{(6,1)} \boxtimes S_{(4,3,2)}) + (S_{(2^3,1)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(3,2^2)} \boxtimes S_{(4^2,1)}) + (S_{(3^2,1)} \boxtimes S_{(4^2,1)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(4^2,1)}) + (S_{(4,3)} \boxtimes S_{(4^2,1)}) + (S_{(5,2)} \boxtimes S_{(4^2,1)}) + (S_{(3,1^4)} \boxtimes S_{(5,1^4)}) + (S_{(3,2,1^2)} \boxtimes S_{(5,1^4)}) + (S_{(3,2^2)} \boxtimes S_{(5,1^4)}) + (S_{(4,1^3)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(5,1^4)}) + (S_{(4,3)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(5,1^4)}) + (S_{(6,1)} \boxtimes S_{(5,1^4)}) + (S_{(7)} \boxtimes S_{(5,1^4)}) + (S_{(3,1^4)} \boxtimes S_{(5,2,1^2)}) + 3 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,2,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(5,2,1^2)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(5,2,1^2)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(5,2,1^2)}) + 4 \cdot (S_{(5,1^2)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(5,2,1^2)}) + (S_{(3,1^4)} \boxtimes S_{(5,2^2)}) + (S_{(3,2,1^2)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(3,2^2)} \boxtimes S_{(5,2^2)}) + (S_{(3^2,1)} \boxtimes S_{(5,2^2)}) + (S_{(4,1^3)} \boxtimes S_{(5,2^2)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(5,2^2)}) + (S_{(5,1^2)} \boxtimes S_{(5,2^2)}) + 4 \cdot (S_{(5,2)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(5,2^2)}) + (S_{(7)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,3,1)}) + (S_{(3,2^2)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(5,3,1)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(5,3,1)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(5,3,1)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(5,3,1)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(5,3,1)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(5,3,1)}) + (S_{(6,1)} \boxtimes S_{(5,3,1)}) + (S_{(3,2^2)} \boxtimes S_{(5,4)}) + (S_{(3^2,1)} \boxtimes S_{(5,4)}) + (S_{(4,2,1)} \boxtimes S_{(5,4)}) + (S_{(4,3)} \boxtimes S_{(5,4)}) + (S_{(5,2)} \boxtimes S_{(5,4)}) + (S_{(4,1^3)} \boxtimes S_{(6,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(6,1^3)}) + (S_{(5,1^2)} \boxtimes S_{(6,1^3)}) + (S_{(5,2)} \boxtimes S_{(6,1^3)}) + (S_{(4,1^3)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(6,2,1)}) + (S_{(4,3)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(6,2,1)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(6,2,1)}) + (S_{(7)} \boxtimes S_{(6,2,1)}) + (S_{(4,2,1)} \boxtimes S_{(6,3)}) + (S_{(4,3)} \boxtimes S_{(6,3)}) + (S_{(5,1^2)} \boxtimes S_{(6,3)}) + (S_{(5,2)} \boxtimes S_{(6,3)}) + (S_{(6,1)} \boxtimes S_{(6,3)}) + (S_{(5,1^2)} \boxtimes S_{(7,1^2)}) + (S_{(5,2)} \boxtimes S_{(7,2)}) + (S_{(6,1)} \boxtimes S_{(7,2)}) + (S_{(7)} \boxtimes S_{(7,2)})$ | 1481789 |

$(8,9)$	$(S_{(2,1^6)}\boxtimes S_{(1^9)})+(S_{(2,1^6)}\boxtimes S_{(2,1^7)})+(S_{(2^2,1^4)}\boxtimes S_{(2,1^7)})+(S_{(3,1^5)}\boxtimes S_{(2,1^7)})+(S_{(1^8)}\boxtimes S_{(2^2,1^5)})+(S_{(2,1^6)}\boxtimes S_{(2^2,1^5)})+(S_{(2^2,1^4)}\boxtimes S_{(2^2,1^5)})+(S_{(2^3,1^2)}\boxtimes S_{(2^2,1^5)})+(S_{(3,1^5)}\boxtimes S_{(2^2,1^5)})+(S_{(3,2,1^3)}\boxtimes S_{(2^2,1^5)})+(S_{(2,1^6)}\boxtimes S_{(2^3,1^3)})+(S_{(2^2,1^4)}\boxtimes S_{(2^3,1^3)})+(S_{(2^3,1^2)}\boxtimes S_{(2^3,1^3)})+(S_{(2^4)}\boxtimes S_{(2^3,1^3)})+(S_{(3,1^5)}\boxtimes S_{(2^3,1^3)})+(S_{(3,2,1^3)}\boxtimes S_{(2^3,1^3)})+(S_{(3,2^2,1)}\boxtimes S_{(2^3,1^3)})+(S_{(2^2,1^4)}\boxtimes S_{(2^4,1)})+(S_{(2^3,1^2)}\boxtimes S_{(2^4,1)})+(S_{(3,2,1^3)}\boxtimes S_{(2^4,1)})+(S_{(3,2^2,1)}\boxtimes S_{(2^4,1)})+(S_{(2^2,1^4)}\boxtimes S_{(3,1^6)})+(S_{(3,1^5)}\boxtimes S_{(3,1^6)})+(S_{(3,2,1^3)}\boxtimes S_{(3,1^6)})+(S_{(4,1^4)}\boxtimes S_{(3,1^6)})+(S_{(2,1^6)}\boxtimes S_{(3,2,1^4)})+(S_{(2^2,1^4)}\boxtimes 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S_{(4,2,1^3)})+2\cdot(S_{(4,2,1^2)}\boxtimes S_{(4,2,1^3)})+(S_{(4,2^2)}\boxtimes S_{(4,2,1^3)})+(S_{(4,3,1)}\boxtimes S_{(4,2,1^3)})+(S_{(5,1^3)}\boxtimes S_{(4,2,1^3)})+(S_{(5,2,1)}\boxtimes S_{(4,2,1^3)})+(S_{(3,2,1^3)}\boxtimes S_{(4,2^2,1)})+(S_{(3,2^2,1)}\boxtimes S_{(4,2^2,1)})+(S_{(3^2,1^2)}\boxtimes S_{(4,2^2,1)})+(S_{(3^2,2)}\boxtimes S_{(4,2^2,1)})+(S_{(4,1^4)}\boxtimes S_{(4,2^2,1)})+2\cdot(S_{(4,2,1^2)}\boxtimes S_{(4,2^2,1)})+(S_{(4,2^2)}\boxtimes S_{(4,2^2,1)})+(S_{(4,3,1)}\boxtimes S_{(4,2^2,1)})+(S_{(5,1^3)}\boxtimes S_{(4,2^2,1)})+(S_{(5,2,1)}\boxtimes S_{(4,2^2,1)})+(S_{(3,2,1^3)}\boxtimes S_{(4,3,1^2)})+(S_{(3,2^2,1)}\boxtimes S_{(4,3,1^2)})+(S_{(3^2,1^2)}\boxtimes S_{(4,3,1^2)})+(S_{(3^2,2)}\boxtimes S_{(4,3,1^2)})+(S_{(4,2,1^2)}\boxtimes S_{(4,3,1^2)})+(S_{(4,2^2)}\boxtimes S_{(4,3,1^2)})+2\cdot(S_{(4,3,1)}\boxtimes S_{(4,3,1^2)})+(S_{(4^2)}\boxtimes S_{(4,3,1^2)})+(S_{(5,2,1)}\boxtimes S_{(4,3,1^2)})+(S_{(5,3)}\boxtimes S_{(4,3,1^2)})+(S_{(3,2^2,1)}\boxtimes S_{(4,3,2)})+(S_{(3^2,1^2)}\boxtimes S_{(4,3,2)})+(S_{(3^2,2)}\boxtimes S_{(4,3,2)})+(S_{(4,2,1^2)}\boxtimes S_{(4,3,2)})+(S_{(4,2^2)}\boxtimes S_{(4,3,2)})+(S_{(4,3,1)}\boxtimes S_{(4,3,2)})+(S_{(5,2,1)}\boxtimes S_{(4,3,2)})+(S_{(3^2,1^2)}\boxtimes S_{(4^2,1)})+(S_{(3^2,2)}\boxtimes S_{(4^2,1)})+(S_{(4,3,1)}\boxtimes S_{(4^2,1)})+(S_{(5,3)}\boxtimes S_{(4^2,1)})+(S_{(4,2,1^2)}\boxtimes S_{(5,1^4)})+(S_{(5,1^3)}\boxtimes S_{(5,1^4)})+(S_{(5,2,1)}\boxtimes S_{(5,1^4)})+(S_{(6,1^2)}\boxtimes S_{(5,1^4)})+(S_{(4,1^4)}\boxtimes S_{(5,2,1^2)})+(S_{(4,2,1^2)}\boxtimes S_{(5,2,1^2)})+(S_{(4,2^2)}\boxtimes S_{(5,2,1^2)})+(S_{(4,3,1)}\boxtimes S_{(5,2,1^2)})+(S_{(5,1^3)}\boxtimes S_{(5,2,1^2)})+2\cdot(S_{(5,2,1)}\boxtimes S_{(5,2,1^2)})+(S_{(5,3)}\boxtimes S_{(5,2,1^2)})+(S_{(6,1^2)}\boxtimes S_{(5,2,1^2)})+(S_{(6,2)}\boxtimes S_{(5,2,1^2)})+(S_{(4,2,1^2)}\boxtimes S_{(5,2^2)})+(S_{(4,3,1)}\boxtimes S_{(5,2^2)})+(S_{(5,1^3)}\boxtimes S_{(5,2^2)})+(S_{(5,2,1)}\boxtimes S_{(5,2^2)})+(S_{(6,1^2)}\boxtimes S_{(5,2^2)})+(S_{(4,2,1^2)}\boxtimes S_{(5,3,1)})+(S_{(4,2^2)}\boxtimes S_{(5,3,1)})+(S_{(4,3,1)}\boxtimes S_{(5,3,1)})+(S_{(4^2)}\boxtimes S_{(5,3,1)})+(S_{(5,2,1)}\boxtimes S_{(5,3,1)})+(S_{(5,3)}\boxtimes S_{(5,3,1)})+(S_{(6,2)}\boxtimes S_{(5,3,1)})+(S_{(4,3,1)}\boxtimes S_{(5,4)})+(S_{(5,2,1)}\boxtimes S_{(6,1^3)})+(S_{(6,1^2)}\boxtimes S_{(6,1^3)})+(S_{(6,2)}\boxtimes S_{(6,1^3)})+(S_{(7,1)}\boxtimes S_{(6,1^3)})+(S_{(5,1^3)}\boxtimes S_{(6,2,1)})+(S_{(5,2,1)}\boxtimes S_{(6,2,1)})+(S_{(5,3)}\boxtimes S_{(6,2,1)})+(S_{(6,1^2)}\boxtimes S_{(6,2,1)})+(S_{(6,2)}\boxtimes S_{(6,2,1)})+(S_{(7,1)}\boxtimes S_{(6,2,1)})+(S_{(5,2,1)}\boxtimes S_{(6,3)})+(S_{(6,2)}\boxtimes S_{(7,1^2)})+(S_{(7,1)}\boxtimes S_{(7,1^2)})+(S_{(8)}\boxtimes S_{(7,1^2)})+(S_{(6,1^2)}\boxtimes S_{(7,2)})$	1088641
$(9,9)$	$(S_{(1^9)}\boxtimes S_{(1^9)})+(S_{(2,1^7)}\boxtimes S_{(2,1^7)})+(S_{(2^2,1^5)}\boxtimes S_{(2^2,1^5)})+(S_{(2^3,1^3)}\boxtimes S_{(2^3,1^3)})+(S_{(2^4,1)}\boxtimes S_{(2^4,1)})+(S_{(3,1^6)}\boxtimes S_{(3,1^6)})+(S_{(3,2,1^4)}\boxtimes S_{(3,2,1^4)})+(S_{(3,2^2,1^2)}\boxtimes S_{(3,2^2,1^2)})+(S_{(3,2^3)}\boxtimes S_{(3,2^3)})+(S_{(3^2,1^3)}\boxtimes S_{(3^2,1^3)})+(S_{(3^2,2,1)}\boxtimes S_{(3^2,2,1)})+(S_{(3^3)}\boxtimes S_{(3^3)})+(S_{(4,1^5)}\boxtimes S_{(4,1^5)})+(S_{(4,2,1^3)}\boxtimes S_{(4,2,1^3)})+(S_{(4,2^2,1)}\boxtimes S_{(4,2^2,1)})+(S_{(4,3,1^2)}\boxtimes S_{(4,3,1^2)})+(S_{(4,3,2)}\boxtimes S_{(4,3,2)})+(S_{(4^2,1)}\boxtimes S_{(4^2,1)})+(S_{(5,1^4)}\boxtimes S_{(5,1^4)})+(S_{(5,2,1^2)}\boxtimes S_{(5,2,1^2)})+(S_{(5,2^2)}\boxtimes S_{(5,2^2)})+(S_{(5,3,1)}\boxtimes S_{(5,3,1)})+(S_{(5,4)}\boxtimes S_{(5,4)})+(S_{(6,1^3)}\boxtimes S_{(6,1^3)})+(S_{(6,2,1)}\boxtimes S_{(6,2,1)})+(S_{(6,3)}\boxtimes S_{(6,3)})+(S_{(7,1^2)}\boxtimes S_{(7,1^2)})+(S_{(7,2)}\boxtimes S_{(7,2)})+(S_{(8,1)}\boxtimes S_{(8,1)})+(S_{(9)}\boxtimes S_{(9)})$	362880

$(0, 10)$	0	0
$(1, 10)$	0	0
$(2, 10)$	$(S_{(2)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(2)} \boxtimes S_{(2^5)}) + (S_{(2)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(2)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(2)} \boxtimes S_{(3,2^2,1^3)}) + 3 \cdot (S_{(2)} \boxtimes S_{(3,2^3,1)}) + (S_{(2)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(2)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2)} \boxtimes S_{(3^3,1)}) + 5 \cdot (S_{(2)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(2)} \boxtimes S_{(4,2^2,1^2)}) + 5 \cdot (S_{(2)} \boxtimes S_{(4,2^3)}) + 6 \cdot (S_{(2)} \boxtimes S_{(4,3,1^3)}) + 9 \cdot (S_{(2)} \boxtimes S_{(4,3,2,1)}) + (S_{(2)} \boxtimes S_{(4,3^2)}) + (S_{(2)} \boxtimes S_{(4^2,1^2)}) + 5 \cdot (S_{(2)} \boxtimes S_{(4^2,2)}) + (S_{(2)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(2)} \boxtimes S_{(5,2,1^3)}) + 5 \cdot (S_{(2)} \boxtimes S_{(5,2^2,1)}) + 8 \cdot (S_{(2)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(2)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(2)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(2)} \boxtimes S_{(6,1^4)}) + 3 \cdot (S_{(2)} \boxtimes S_{(6,2,1^2)}) + 4 \cdot (S_{(2)} \boxtimes S_{(6,2^2)}) + 3 \cdot (S_{(2)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(2)} \boxtimes S_{(6,4)}) + (S_{(2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(2)} \boxtimes S_{(7,2,1)}) + (S_{(2)} \boxtimes S_{(8,2)})$	40320
$(3, 10)$	$(S_{(3)} \boxtimes S_{(2^2,1^6)}) + (S_{(1^3)} \boxtimes S_{(2^3,1^4)}) + (S_{(2,1)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(3)} \boxtimes S_{(2^3,1^4)}) + (S_{(2,1)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(3)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(2^5)}) + (S_{(1^3)} \boxtimes S_{(3,1^7)}) + (S_{(2,1)} \boxtimes S_{(3,1^7)}) + (S_{(3)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(3)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(1^3)} \boxtimes S_{(3,2^2,1^3)}) + 5 \cdot (S_{(2,1)} \boxtimes S_{(3,2^2,1^3)}) + 10 \cdot (S_{(3)} \boxtimes S_{(3,2^2,1^3)}) + 3 \cdot (S_{(1^3)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(3)} \boxtimes S_{(3,2^3,1)}) + (S_{(1^3)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(3^2,1^4)}) + 8 \cdot (S_{(3)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(1^3)} \boxtimes S_{(3^2,2,1^2)}) + 6 \cdot (S_{(2,1)} \boxtimes S_{(3^2,2,1^2)}) + 13 \cdot (S_{(3)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(1^3)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2,1)} \boxtimes S_{(3^2,2^2)}) + 10 \cdot (S_{(3)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(1^3)} \boxtimes S_{(3^3,1)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(3^3,1)}) + 6 \cdot (S_{(3)} \boxtimes S_{(3^3,1)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(3)} \boxtimes S_{(4,1^6)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(2,1)} \boxtimes S_{(4,2,1^4)}) + 10 \cdot (S_{(3)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(4,2^2,1^2)}) + 9 \cdot (S_{(2,1)} \boxtimes S_{(4,2^2,1^2)}) + 20 \cdot (S_{(3)} \boxtimes S_{(4,2^2,1^2)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(4,2^3)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(4,2^3)}) + 7 \cdot (S_{(3)} \boxtimes S_{(4,2^3)}) + 6 \cdot (S_{(1^3)} \boxtimes S_{(4,3,1^3)}) + 7 \cdot (S_{(2,1)} \boxtimes S_{(4,3,1^3)}) + 16 \cdot (S_{(3)} \boxtimes S_{(4,3,1^3)}) + 9 \cdot (S_{(1^3)} \boxtimes S_{(4,3,2,1)}) + 10 \cdot (S_{(2,1)} \boxtimes S_{(4,3,2,1)}) + 23 \cdot (S_{(3)} \boxtimes S_{(4,3,2,1)}) + (S_{(1^3)} \boxtimes S_{(4,3^2)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(4,3^2)}) + 8 \cdot (S_{(3)} \boxtimes S_{(4,3^2)}) + (S_{(1^3)} \boxtimes S_{(4^2,1^2)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(4^2,1^2)}) + 11 \cdot (S_{(3)} \boxtimes S_{(4^2,1^2)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(2,1)} \boxtimes S_{(4^2,2)}) + 5 \cdot (S_{(3)} \boxtimes S_{(4^2,2)}) + (S_{(1^3)} \boxtimes S_{(5,1^5)}) + (S_{(2,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(3)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(5,2,1^3)}) + 6 \cdot (S_{(2,1)} \boxtimes S_{(5,2,1^3)}) + 13 \cdot (S_{(3)} \boxtimes S_{(5,2,1^3)}) + 5 \cdot (S_{(1^3)} \boxtimes S_{(5,2^2,1)}) + 7 \cdot (S_{(2,1)} \boxtimes S_{(5,2^2,1)}) + 16 \cdot (S_{(3)} \boxtimes S_{(5,2^2,1)}) + 8 \cdot (S_{(1^3)} \boxtimes S_{(5,3,1^2)}) + 9 \cdot (S_{(2,1)} \boxtimes S_{(5,3,1^2)}) + 16 \cdot (S_{(3)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(1^3)} \boxtimes S_{(5,3,2)}) + 6 \cdot (S_{(2,1)} \boxtimes S_{(5,3,2)}) + 14 \cdot (S_{(3)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(1^3)} \boxtimes S_{(5,4,1)}) + 4 \cdot (S_{(2,1)} \boxtimes S_{(5,4,1)}) + 8 \cdot (S_{(3)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(3)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(6,1^4)}) + (S_{(2,1)} \boxtimes S_{(6,1^4)}) + 3 \cdot (S_{(3)} \boxtimes S_{(6,1^4)}) + 3 \cdot (S_{(1^3)} \boxtimes S_{(6,2,1^2)}) + 5 \cdot (S_{(2,1)} \boxtimes S_{(6,2,1^2)}) + 11 \cdot (S_{(3)} \boxtimes S_{(6,2,1^2)}) + 4 \cdot (S_{(1^3)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(6,2^2)}) + 4 \cdot (S_{(3)} \boxtimes S_{(6,2^2)}) + 3 \cdot (S_{(1^3)} \boxtimes S_{(6,3,1)}) + 5 \cdot (S_{(2,1)} \boxtimes S_{(6,3,1)}) + 9 \cdot (S_{(3)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(6,4)}) + (S_{(2,1)} \boxtimes S_{(6,4)}) + (S_{(3)} \boxtimes S_{(6,4)}) + (S_{(1^3)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(3)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(1^3)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(7,2,1)}) + 4 \cdot (S_{(3)} \boxtimes S_{(7,2,1)}) + (S_{(2,1)} \boxtimes S_{(7,3)}) + 2 \cdot (S_{(3)} \boxtimes S_{(7,3)}) + (S_{(2,1)} \boxtimes S_{(8,1^2)}) + (S_{(3)} \boxtimes S_{(8,1^2)}) + (S_{(1^3)} \boxtimes S_{(8,2)})$	250704

| $(4,10)$ | $2 \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^2)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^6)}) + (S_{(4)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(3,1)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(4)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(2^4,1^2)}) + 6 \cdot (S_{(2,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^2)} \boxtimes S_{(2^4,1^2)}) + 5 \cdot (S_{(3,1)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(4)} \boxtimes S_{(2^4,1^2)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(2^5)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(2^5)}) + 3 \cdot (S_{(4)} \boxtimes S_{(2^5)}) + (S_{(1^4)} \boxtimes S_{(3,1^7)}) + (S_{(2,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(2^2)} \boxtimes S_{(3,1^7)}) + (S_{(4)} \boxtimes S_{(3,1^7)}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(3,2,1^5)}) + 7 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^5)}) + 8 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(4)} \boxtimes S_{(3,2,1^5)}) + 7 \cdot (S_{(1^4)} \boxtimes S_{(3,2^2,1^3)}) + 13 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 9 \cdot (S_{(2^2)} \boxtimes S_{(3,2^2,1^3)}) + 14 \cdot (S_{(3,1)} \boxtimes S_{(3,2^2,1^3)}) + 11 \cdot (S_{(4)} \boxtimes S_{(3,2^2,1^3)}) + 6 \cdot (S_{(1^4)} \boxtimes S_{(3,2^3,1)}) + 12 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^3,1)}) + 8 \cdot (S_{(2^2)} \boxtimes S_{(3,2^3,1)}) + 14 \cdot (S_{(3,1)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot (S_{(4)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(1^4)} \boxtimes S_{(3^2,1^4)}) + 13 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,1^4)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(3^2,1^4)}) + 15 \cdot (S_{(3,1)} \boxtimes S_{(3^2,1^4)}) + 7 \cdot (S_{(4)} \boxtimes S_{(3^2,1^4)}) + 9 \cdot (S_{(1^4)} \boxtimes S_{(3^2,2,1^2)}) + 17 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 16 \cdot (S_{(2^2)} \boxtimes S_{(3^2,2,1^2)}) + 23 \cdot (S_{(3,1)} \boxtimes S_{(3^2,2,1^2)}) + 18 \cdot (S_{(4)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(1^4)} \boxtimes S_{(3^2,2^2)}) + 14 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(3^2,2^2)}) + 12 \cdot (S_{(3,1)} \boxtimes S_{(3^2,2^2)}) + 6 \cdot (S_{(4)} \boxtimes S_{(3^2,2^2)}) + 5 \cdot (S_{(1^4)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(2,1^2)} \boxtimes S_{(3^3,1)}) + 6 \cdot (S_{(2^2)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(3,1)} \boxtimes S_{(3^3,1)}) + 8 \cdot (S_{(4)} \boxtimes S_{(3^3,1)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(4)} \boxtimes S_{(4,1^6)}) + 7 \cdot (S_{(1^4)} \boxtimes S_{(4,2,1^4)}) + 13 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2,1^4)}) + 12 \cdot (S_{(2^2)} \boxtimes S_{(4,2,1^4)}) + 15 \cdot (S_{(3,1)} \boxtimes S_{(4,2,1^4)}) + 13 \cdot (S_{(4)} \boxtimes S_{(4,2,1^4)}) + 12 \cdot (S_{(1^4)} \boxtimes S_{(4,2^2,1^2)}) + 27 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 11 \cdot (S_{(2^2)} \boxtimes S_{(4,2^2,1^2)}) + 23 \cdot (S_{(3,1)} \boxtimes S_{(4,2^2,1^2)}) + 16 \cdot (S_{(4)} \boxtimes S_{(4,2^2,1^2)}) + 6 \cdot (S_{(1^4)} \boxtimes S_{(4,2^3)}) + 9 \cdot (S_{(2,1^2)} \boxtimes S_{(4,2^3)}) + 13 \cdot (S_{(2^2)} \boxtimes S_{(4,2^3)}) + 15 \cdot (S_{(3,1)} \boxtimes S_{(4,2^3)}) + 14 \cdot (S_{(4)} \boxtimes S_{(4,2^3)}) + 11 \cdot (S_{(1^4)} \boxtimes S_{(4,3,1^3)}) + 23 \cdot (S_{(2,1^2)} \boxtimes S_{(4,3,1^3)}) + 16 \cdot (S_{(2^2)} \boxtimes S_{(4,3,1^3)}) + 26 \cdot (S_{(3,1)} \boxtimes S_{(4,3,1^3)}) + 19 \cdot (S_{(4)} \boxtimes S_{(4,3,1^3)}) + 14 \cdot (S_{(1^4)} \boxtimes S_{(4,3,2,1)}) + 33 \cdot (S_{(2,1^2)} \boxtimes S_{(4,3,2,1)}) + 23 \cdot (S_{(2^2)} \boxtimes S_{(4,3,2,1)}) + 35 \cdot (S_{(3,1)} \boxtimes S_{(4,3,2,1)}) + 25 \cdot (S_{(4)} \boxtimes S_{(4,3,2,1)}) + 5 \cdot (S_{(1^4)} \boxtimes S_{(4,3^2)}) + 11 \cdot (S_{(2,1^2)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(4,3^2)}) + 6 \cdot (S_{(3,1)} \boxtimes S_{(4,3^2)}) + 5 \cdot (S_{(4)} \boxtimes S_{(4,3^2)}) + 6 \cdot (S_{(1^4)} \boxtimes S_{(4^2,1^2)}) + 17 \cdot (S_{(2,1^2)} \boxtimes S_{(4^2,1^2)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(4^2,1^2)}) + 14 \cdot (S_{(3,1)} \boxtimes S_{(4^2,1^2)}) + 8 \cdot (S_{(4)} \boxtimes S_{(4^2,1^2)}) + 4 \cdot (S_{(1^4)} \boxtimes S_{(4^2,2)}) + 7 \cdot (S_{(2,1^2)} \boxtimes S_{(4^2,2)}) + 12 \cdot (S_{(2^2)} \boxtimes S_{(4^2,2)}) + 13 \cdot (S_{(3,1)} \boxtimes S_{(4^2,2)}) + 12 \cdot (S_{(4)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(5,1^5)}) + 6 \cdot (S_{(2,1^2)} \boxtimes S_{(5,1^5)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(5,1^5)}) + 8 \cdot (S_{(3,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(4)} \boxtimes S_{(5,1^5)}) + 8 \cdot (S_{(1^4)} \boxtimes S_{(5,2,1^3)}) + 19 \cdot (S_{(2,1^2)} \boxtimes S_{(5,2,1^3)}) + 14 \cdot (S_{(2^2)} \boxtimes S_{(5,2,1^3)}) + 20 \cdot (S_{(3,1)} \boxtimes S_{(5,2,1^3)}) + 14 \cdot (S_{(4)} \boxtimes S_{(5,2,1^3)}) + 10 \cdot (S_{(1^4)} \boxtimes S_{(5,2^2,1)}) + 24 \cdot (S_{(2,1^2)} \boxtimes S_{(5,2^2,1)}) + 14 \cdot (S_{(2^2)} \boxtimes S_{(5,2^2,1)}) + 24 \cdot (S_{(3,1)} \boxtimes S_{(5,2^2,1)}) + 17 \cdot (S_{(4)} \boxtimes S_{(5,2^2,1)}) + 11 \cdot (S_{(1^4)} \boxtimes S_{(5,3,1^2)}) + 22 \cdot (S_{(2,1^2)} \boxtimes S_{(5,3,1^2)}) + 18 \cdot (S_{(2^2)} \boxtimes S_{(5,3,1^2)}) + 21 \cdot (S_{(3,1)} \boxtimes S_{(5,3,1^2)}) + 19 \cdot (S_{(4)} \boxtimes S_{(5,3,1^2)}) + 8 \cdot (S_{(1^4)} \boxtimes S_{(5,3,2)}) + 21 \cdot (S_{(2,1^2)} \boxtimes S_{(5,3,2)}) + 10 \cdot (S_{(2^2)} \boxtimes S_{(5,3,2)}) + 19 \cdot (S_{(3,1)} \boxtimes S_{(5,3,2)}) + 13 \cdot (S_{(4)} \boxtimes S_{(5,3,2)}) + 5 \cdot (S_{(1^4)} \boxtimes S_{(5,4,1)}) + 12 \cdot (S_{(2,1^2)} \boxtimes S_{(5,4,1)}) + 7 \cdot (S_{(2^2)} \boxtimes S_{(5,4,1)}) + 10 \cdot (S_{(3,1)} \boxtimes S_{(5,4,1)}) + 8 \cdot (S_{(4)} \boxtimes S_{(5,4,1)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(5^2)}) + (S_{(3,1)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(6,1^4)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(6,1^4)}) + 6 \cdot (S_{(2^2)} \boxtimes S_{(6,1^4)}) + 7 \cdot (S_{(3,1)} \boxtimes S_{(6,1^4)}) + 5 \cdot (S_{(4)} \boxtimes S_{(6,1^4)}) + 6 \cdot (S_{(1^4)} \boxtimes S_{(6,2,1^2)}) + 18 \cdot (S_{(2,1^2)} \boxtimes S_{(6,2,1^2)}) + 8 \cdot (S_{(2^2)} \boxtimes S_{(6,2,1^2)}) + 13 \cdot (S_{(3,1)} \boxtimes S_{(6,2,1^2)}) + 8 \cdot (S_{(4)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(6,2^2)}) + 7 \cdot (S_{(2,1^2)} \boxtimes S_{(6,2^2)}) + 10 \cdot (S_{(2^2)} \boxtimes S_{(6,2^2)}) + 11 \cdot (S_{(3,1)} \boxtimes S_{(6,2^2)}) + 9 \cdot (S_{(4)} \boxtimes S_{(6,2^2)}) + 5 \cdot (S_{(1^4)} \boxtimes S_{(6,3,1)}) + 14 \cdot (S_{(2,1^2)} \boxtimes S_{(6,3,1)}) + 7 \cdot (S_{(2^2)} \boxtimes S_{(6,3,1)}) + 10 \cdot (S_{(3,1)} \boxtimes S_{(6,3,1)}) + 8 \cdot (S_{(4)} \boxtimes S_{(6,3,1)}) + (S_{(1^4)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(6,4)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(6,4)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(6,4)}) + 4 \cdot (S_{(4)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(7,1^3)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(4)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(7,2,1)}) + 6 \cdot (S_{(2,1^2)} \boxtimes S_{(7,2,1)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(7,2,1)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(7,2,1)}) + 3 \cdot (S_{(4)} \boxtimes S_{(7,2,1)}) + (S_{(1^4)} \boxtimes S_{(7,3)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(7,3)}) + (S_{(2^2)} \boxtimes S_{(7,3)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(7,3)}) + 2 \cdot (S_{(4)} \boxtimes S_{(7,3)}) + (S_{(2,1^2)} \boxtimes S_{(8,1^2)}) + (S_{(2^2)} \boxtimes S_{(8,2)}) + (S_{(3,1)} \boxtimes S_{(8,2)}) + (S_{(4)} \boxtimes S_{(8,2)})$ | 1339975 |

(5, 10)	$(S_{(1^5)}\boxtimes S_{(2^2,1^6)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(2^2,1^6)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(2^2,1^6)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(2^2,1^6)})+$ $(S_{(3,2)}\boxtimes S_{(2^2,1^6)})+(S_{(5)}\boxtimes S_{(2^2,1^6)})+(S_{(1^5)}\boxtimes S_{(2^3,1^4)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(2^3,1^4)})+6\cdot$ $(S_{(2^2,1)}\boxtimes S_{(2^3,1^4)})+8\cdot(S_{(3,1^2)}\boxtimes S_{(2^3,1^4)})+4\cdot(S_{(3,2)}\boxtimes S_{(2^3,1^4)})+2\cdot(S_{(4,1)}\boxtimes S_{(2^3,1^4)})+$ $3\cdot(S_{(1^5)}\boxtimes S_{(2^4,1^2)})+6\cdot(S_{(2,1^3)}\boxtimes S_{(2^4,1^2)})+8\cdot(S_{(2^2,1)}\boxtimes S_{(2^4,1^2)})+6\cdot(S_{(3,1^2)}\boxtimes$ $S_{(2^4,1^2)})+8\cdot(S_{(3,2)}\boxtimes S_{(2^4,1^2)})+5\cdot(S_{(4,1)}\boxtimes S_{(2^4,1^2)})+2\cdot(S_{(5)}\boxtimes S_{(2^4,1^2)})+(S_{(1^5)}\boxtimes$ $S_{(2^5)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(2^5)})+(S_{(2^2,1)}\boxtimes S_{(2^5)})+7\cdot(S_{(3,1^2)}\boxtimes S_{(2^5)})+(S_{(4,1)}\boxtimes S_{(2^5)})+$ $2\cdot(S_{(2^2,1)}\boxtimes S_{(3,1^7)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(3,1^7)})+3\cdot(S_{(3,2)}\boxtimes S_{(3,1^7)})+3\cdot(S_{(4,1)}\boxtimes S_{(3,1^7)})+$ $(S_{(5)}\boxtimes S_{(3,1^7)})+3\cdot(S_{(1^5)}\boxtimes S_{(3,2,1^5)})+9\cdot(S_{(2,1^3)}\boxtimes S_{(3,2,1^5)})+11\cdot(S_{(2^2,1)}\boxtimes S_{(3,2,1^5)})+$ $13\cdot(S_{(3,1^2)}\boxtimes S_{(3,2,1^5)})+11\cdot(S_{(3,2)}\boxtimes S_{(3,2,1^5)})+9\cdot(S_{(4,1)}\boxtimes S_{(3,2,1^5)})+3\cdot(S_{(5)}\boxtimes$ $S_{(3,2,1^5)})+5\cdot(S_{(1^5)}\boxtimes S_{(3,2^2,1^3)})+17\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^2,1^3)})+23\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^2,1^3)})+$ $29\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^2,1^3)})+25\cdot(S_{(3,2)}\boxtimes S_{(3,2^2,1^3)})+21\cdot(S_{(4,1)}\boxtimes S_{(3,2^2,1^3)})+6\cdot(S_{(5)}\boxtimes$ $S_{(3,2^2,1^3)})+5\cdot(S_{(1^5)}\boxtimes S_{(3,2^3,1)})+17\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^3,1)})+21\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^3,1)})+$ $25\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^3,1)})+21\cdot(S_{(3,2)}\boxtimes S_{(3,2^3,1)})+17\cdot(S_{(4,1)}\boxtimes S_{(3,2^3,1)})+5\cdot(S_{(5)}\boxtimes$ $S_{(3,2^3,1)})+6\cdot(S_{(1^5)}\boxtimes S_{(3^2,1^4)})+16\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,1^4)})+17\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,1^4)})+16\cdot$ $(S_{(3,1^2)}\boxtimes S_{(3^2,1^4)})+15\cdot(S_{(3,2)}\boxtimes S_{(3^2,1^4)})+9\cdot(S_{(4,1)}\boxtimes S_{(3^2,1^4)})+4\cdot(S_{(5)}\boxtimes S_{(3^2,1^4)})+$ $7\cdot(S_{(1^5)}\boxtimes S_{(3^2,2,1^2)})+28\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2,1^2)})+31\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2,1^2)})+41\cdot(S_{(3,1^2)}\boxtimes$ $S_{(3^2,2,1^2)})+29\cdot(S_{(3,2)}\boxtimes S_{(3^2,2,1^2)})+24\cdot(S_{(4,1)}\boxtimes S_{(3^2,2,1^2)})+7\cdot(S_{(5)}\boxtimes S_{(3^2,2,1^2)})+$ $6\cdot(S_{(1^5)}\boxtimes S_{(3^2,2^2)})+13\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2^2)})+20\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2^2)})+17\cdot(S_{(3,1^2)}\boxtimes$ $S_{(3^2,2^2)})+20\cdot(S_{(3,2)}\boxtimes S_{(3^2,2^2)})+14\cdot(S_{(4,1)}\boxtimes S_{(3^2,2^2)})+6\cdot(S_{(5)}\boxtimes S_{(3^2,2^2)})+2\cdot$ $(S_{(1^5)}\boxtimes S_{(3^3,1)})+10\cdot(S_{(2,1^3)}\boxtimes S_{(3^3,1)})+13\cdot(S_{(2^2,1)}\boxtimes S_{(3^3,1)})+20\cdot(S_{(3,1^2)}\boxtimes S_{(3^3,1)})+$ $16\cdot(S_{(3,2)}\boxtimes S_{(3^3,1)})+14\cdot(S_{(4,1)}\boxtimes S_{(3^3,1)})+4\cdot(S_{(5)}\boxtimes S_{(3^3,1)})+(S_{(1^5)}\boxtimes S_{(4,1^6)})+3\cdot$ $(S_{(2,1^3)}\boxtimes S_{(4,1^6)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(4,1^6)})+6\cdot(S_{(3,1^2)}\boxtimes S_{(4,1^6)})+8\cdot(S_{(3,2)}\boxtimes S_{(4,1^6)})+6\cdot$ $(S_{(4,1)}\boxtimes S_{(4,1^6)})+2\cdot(S_{(5)}\boxtimes S_{(4,1^6)})+5\cdot(S_{(1^5)}\boxtimes S_{(4,2,1^4)})+19\cdot(S_{(2,1^3)}\boxtimes S_{(4,2,1^4)})+$ $24\cdot(S_{(2^2,1)}\boxtimes S_{(4,2,1^4)})+32\cdot(S_{(3,1^2)}\boxtimes S_{(4,2,1^4)})+24\cdot(S_{(3,2)}\boxtimes S_{(4,2,1^4)})+20\cdot(S_{(4,1)}\boxtimes$ $S_{(4,2,1^4)})+6\cdot(S_{(5)}\boxtimes S_{(4,2,1^4)})+10\cdot(S_{(1^5)}\boxtimes S_{(4,2^2,1^2)})+28\cdot(S_{(2,1^3)}\boxtimes S_{(4,2^2,1^2)})+40\cdot$ $(S_{(2^2,1)}\boxtimes S_{(4,2^2,1^2)})+43\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^2,1^2)})+44\cdot(S_{(3,2)}\boxtimes S_{(4,2^2,1^2)})+35\cdot(S_{(4,1)}\boxtimes$ $S_{(4,2^2,1^2)})+13\cdot(S_{(5)}\boxtimes S_{(4,2^2,1^2)})+3\cdot(S_{(1^5)}\boxtimes S_{(4,2^3)})+18\cdot(S_{(2,1^3)}\boxtimes S_{(4,2^3)})+18\cdot$ $(S_{(2^2,1)}\boxtimes S_{(4,2^3)})+29\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^3)})+16\cdot(S_{(3,2)}\boxtimes S_{(4,2^3)})+13\cdot(S_{(4,1)}\boxtimes S_{(4,2^3)})+$ $3\cdot(S_{(5)}\boxtimes S_{(4,2^3)})+8\cdot(S_{(1^5)}\boxtimes S_{(4,3,1^3)})+29\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,1^3)})+36\cdot(S_{(2^2,1)}\boxtimes$ $S_{(4,3,1^3)})+43\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,1^3)})+33\cdot(S_{(3,2)}\boxtimes S_{(4,3,1^3)})+25\cdot(S_{(4,1)}\boxtimes S_{(4,3,1^3)})+$ $8\cdot(S_{(5)}\boxtimes S_{(4,3,1^3)})+11\cdot(S_{(1^5)}\boxtimes S_{(4,3,2,1)})+41\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,2,1)})+48\cdot(S_{(2^2,1)}\boxtimes$ $S_{(4,3,2,1)})+59\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,2,1)})+48\cdot(S_{(3,2)}\boxtimes S_{(4,3,2,1)})+41\cdot(S_{(4,1)}\boxtimes S_{(4,3,2,1)})+$ $15\cdot(S_{(5)}\boxtimes S_{(4,3,2,1)})+3\cdot(S_{(1^5)}\boxtimes S_{(4,3^2)})+8\cdot(S_{(2,1^3)}\boxtimes S_{(4,3^2)})+14\cdot(S_{(2^2,1)}\boxtimes$ $S_{(4,3^2)})+13\cdot(S_{(3,1^2)}\boxtimes S_{(4,3^2)})+16\cdot(S_{(3,2)}\boxtimes S_{(4,3^2)})+13\cdot(S_{(4,1)}\boxtimes S_{(4,3^2)})+5\cdot$ $(S_{(5)}\boxtimes S_{(4,3^2)})+5\cdot(S_{(1^5)}\boxtimes S_{(4^2,1^2)})+14\cdot(S_{(2,1^3)}\boxtimes S_{(4^2,1^2)})+20\cdot(S_{(2^2,1)}\boxtimes S_{(4^2,1^2)})+$ $17\cdot(S_{(3,1^2)}\boxtimes S_{(4^2,1^2)})+20\cdot(S_{(3,2)}\boxtimes S_{(4^2,1^2)})+14\cdot(S_{(4,1)}\boxtimes S_{(4^2,1^2)})+7\cdot(S_{(5)}\boxtimes$ $S_{(4^2,1^2)})+2\cdot(S_{(1^5)}\boxtimes S_{(4^2,2)})+14\cdot(S_{(2,1^3)}\boxtimes S_{(4^2,2)})+12\cdot(S_{(2^2,1)}\boxtimes S_{(4^2,2)})+22\cdot$ $(S_{(3,1^2)}\boxtimes S_{(4^2,2)})+10\cdot(S_{(3,2)}\boxtimes S_{(4^2,2)})+9\cdot(S_{(4,1)}\boxtimes S_{(4^2,2)})+3\cdot(S_{(5)}\boxtimes S_{(4^2,2)})+3\cdot$ $(S_{(1^5)}\boxtimes S_{(5,1^5)})+8\cdot(S_{(2,1^3)}\boxtimes S_{(5,1^5)})+9\cdot(S_{(2^2,1)}\boxtimes S_{(5,1^5)})+9\cdot(S_{(3,1^2)}\boxtimes S_{(5,1^5)})+7\cdot$ $(S_{(3,2)}\boxtimes S_{(5,1^5)})+4\cdot(S_{(4,1)}\boxtimes S_{(5,1^5)})+2\cdot(S_{(5)}\boxtimes S_{(5,1^5)})+6\cdot(S_{(1^5)}\boxtimes S_{(5,2,1^3)})+24\cdot$ $(S_{(2,1^3)}\boxtimes S_{(5,2,1^3)})+28\cdot(S_{(2^2,1)}\boxtimes S_{(5,2,1^3)})+33\cdot(S_{(3,1^2)}\boxtimes S_{(5,2,1^3)})+27\cdot(S_{(3,2)}\boxtimes$ $S_{(5,2,1^3)})+21\cdot(S_{(4,1)}\boxtimes S_{(5,2,1^3)})+8\cdot(S_{(5)}\boxtimes S_{(5,2,1^3)})+7\cdot(S_{(1^5)}\boxtimes S_{(5,2^2,1)})+26\cdot$ $(S_{(2,1^3)}\boxtimes S_{(5,2^2,1)})+32\cdot(S_{(2^2,1)}\boxtimes S_{(5,2^2,1)})+36\cdot(S_{(3,1^2)}\boxtimes S_{(5,2^2,1)})+30\cdot(S_{(3,2)}\boxtimes$ $S_{(5,2^2,1)})+22\cdot(S_{(4,1)}\boxtimes S_{(5,2^2,1)})+9\cdot(S_{(5)}\boxtimes S_{(5,2^2,1)})+5\cdot(S_{(1^5)}\boxtimes S_{(5,3,1^2)})+24\cdot$ $(S_{(2,1^3)}\boxtimes S_{(5,3,1^2)})+31\cdot(S_{(2^2,1)}\boxtimes S_{(5,3,1^2)})+41\cdot(S_{(3,1^2)}\boxtimes S_{(5,3,1^2)})+33\cdot(S_{(3,2)}\boxtimes$ $S_{(5,3,1^2)})+28\cdot(S_{(4,1)}\boxtimes S_{(5,3,1^2)})+11\cdot(S_{(5)}\boxtimes S_{(5,3,1^2)})+5\cdot(S_{(1^5)}\boxtimes S_{(5,3,2)})+19\cdot$ $(S_{(2,1^3)}\boxtimes S_{(5,3,2)})+25\cdot(S_{(2^2,1)}\boxtimes S_{(5,3,2)})+28\cdot(S_{(3,1^2)}\boxtimes S_{(5,3,2)})+25\cdot(S_{(3,2)}\boxtimes$ $S_{(5,3,2)})+20\cdot(S_{(4,1)}\boxtimes S_{(5,3,2)})+9\cdot(S_{(5)}\boxtimes S_{(5,3,2)})+2\cdot(S_{(1^5)}\boxtimes S_{(5,4,1)})+\cdots$	5408932

$(5,10)$	$\cdots + 10 \cdot (S_{(2,1^3)} \boxtimes S_{(5,4,1)}) + 14 \cdot (S_{(2^2,1)} \boxtimes S_{(5,4,1)}) + 17 \cdot (S_{(3,1^2)} \boxtimes S_{(5,4,1)}) + 15 \cdot (S_{(3,2)} \boxtimes S_{(5,4,1)}) + 13 \cdot (S_{(4,1)} \boxtimes S_{(5,4,1)}) + 6 \cdot (S_{(5)} \boxtimes S_{(5,4,1)}) + (S_{(1^5)} \boxtimes S_{(5^2)}) + (S_{(2,1^3)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(5^2)}) + (S_{(3,1^2)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(5)} \boxtimes S_{(5^2)}) + (S_{(1^5)} \boxtimes S_{(6,1^4)}) + 6 \cdot (S_{(2,1^3)} \boxtimes S_{(6,1^4)}) + 7 \cdot (S_{(2^2,1)} \boxtimes S_{(6,1^4)}) + 8 \cdot (S_{(3,1^2)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(3,2)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(6,1^4)}) + (S_{(5)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(1^5)} \boxtimes S_{(6,2,1^2)}) + 12 \cdot (S_{(2,1^3)} \boxtimes S_{(6,2,1^2)}) + 17 \cdot (S_{(2^2,1)} \boxtimes S_{(6,2,1^2)}) + 17 \cdot (S_{(3,1^2)} \boxtimes S_{(6,2,1^2)}) + 18 \cdot (S_{(3,2)} \boxtimes S_{(6,2,1^2)}) + 13 \cdot (S_{(4,1)} \boxtimes S_{(6,2,1^2)}) + 7 \cdot (S_{(5)} \boxtimes S_{(6,2,1^2)}) + (S_{(1^5)} \boxtimes S_{(6,2^2)}) + 9 \cdot (S_{(2,1^3)} \boxtimes S_{(6,2^2)}) + 9 \cdot (S_{(2^2,1)} \boxtimes S_{(6,2^2)}) + 15 \cdot (S_{(3,1^2)} \boxtimes S_{(6,2^2)}) + 7 \cdot (S_{(3,2)} \boxtimes S_{(6,2^2)}) + 5 \cdot (S_{(4,1)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(5)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(1^5)} \boxtimes S_{(6,3,1)}) + 9 \cdot (S_{(2,1^3)} \boxtimes S_{(6,3,1)}) + 13 \cdot (S_{(2^2,1)} \boxtimes S_{(6,3,1)}) + 15 \cdot (S_{(3,1^2)} \boxtimes S_{(6,3,1)}) + 15 \cdot (S_{(3,2)} \boxtimes S_{(6,3,1)}) + 13 \cdot (S_{(4,1)} \boxtimes S_{(6,3,1)}) + 7 \cdot (S_{(5)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(2,1^3)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(6,4)}) + 6 \cdot (S_{(3,1^2)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(6,4)}) + (S_{(5)} \boxtimes S_{(6,4)}) + (S_{(2,1^3)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(7,1^3)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(7,1^3)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(7,1^3)}) + (S_{(5)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(7,2,1)}) + 4 \cdot (S_{(2^2,1)} \boxtimes S_{(7,2,1)}) + 5 \cdot (S_{(3,1^2)} \boxtimes S_{(7,2,1)}) + 5 \cdot (S_{(3,2)} \boxtimes S_{(7,2,1)}) + 4 \cdot (S_{(4,1)} \boxtimes S_{(7,2,1)}) + 3 \cdot (S_{(5)} \boxtimes S_{(7,2,1)}) + (S_{(2,1^3)} \boxtimes S_{(7,3)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(7,3)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(7,3)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(7,3)}) + (S_{(4,1)} \boxtimes S_{(7,3)}) + (S_{(5)} \boxtimes S_{(7,3)}) + (S_{(3,2)} \boxtimes S_{(8,1^2)}) + (S_{(4,1)} \boxtimes S_{(8,1^2)}) + (S_{(5)} \boxtimes S_{(8,1^2)}) + (S_{(3,1^2)} \boxtimes S_{(8,2)})$	5408932

| $(6,10)$ | $(S_{(5,1)} \boxtimes S_{(1^{10})}) + (S_{(4,2)} \boxtimes S_{(2,1^8)}) + (S_{(5,1)} \boxtimes S_{(2,1^8)}) + (S_{(6)} \boxtimes S_{(2,1^8)}) + (S_{(1^6)} \boxtimes S_{(2^2,1^6)}) + (S_{(2,1^4)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^3)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(2^2,1^6)}) + (S_{(1^6)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1^4)}) + 8 \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(2^3,1^4)}) + 6 \cdot (S_{(4,2)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(5,1)} \boxtimes S_{(2^3,1^4)}) + (S_{(6)} \boxtimes S_{(2^3,1^4)}) + (S_{(1^6)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(2^4,1^2)}) + 8 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(2^4,1^2)}) + 6 \cdot (S_{(3,1^3)} \boxtimes S_{(2^4,1^2)}) + 10 \cdot (S_{(3,2,1)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(2^4,1^2)}) + 7 \cdot (S_{(4,1^2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(5,1)} \boxtimes S_{(2^4,1^2)}) + (S_{(1^6)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^5)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(2^5)}) + 5 \cdot (S_{(3,2,1)} \boxtimes S_{(2^5)}) + (S_{(3^2)} \boxtimes S_{(2^5)}) + (S_{(4,1^2)} \boxtimes S_{(2^5)}) + 5 \cdot (S_{(4,2)} \boxtimes S_{(2^5)}) + (S_{(5,1)} \boxtimes S_{(2^5)}) + (S_{(6)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(2^3)} \boxtimes S_{(3,1^7)}) + 5 \cdot (S_{(3,1^3)} \boxtimes S_{(3,1^7)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(4,2)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3,2,1^5)}) + 6 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^5)}) + 11 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^5)}) + 6 \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^5)}) + 12 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^5)}) + 17 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^5)}) + 10 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^5)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3,2,1^5)}) + (S_{(6)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(3,2^2,1^3)}) + 14 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^2,1^3)}) + 21 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 11 \cdot (S_{(2^3)} \boxtimes S_{(3,2^2,1^3)}) + 26 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2,1^3)}) + 33 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2,1^3)}) + 8 \cdot (S_{(3^2)} \boxtimes S_{(3,2^2,1^3)}) + 19 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 15 \cdot (S_{(4,2)} \boxtimes S_{(3,2^2,1^3)}) + 6 \cdot (S_{(5,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(6)} \boxtimes S_{(3,2^2,1^3)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(3,2^3,1)}) + 12 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^3,1)}) + 19 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot (S_{(2^3)} \boxtimes S_{(3,2^3,1)}) + 21 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^3,1)}) + 31 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(3^2)} \boxtimes S_{(3,2^3,1)}) + 18 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^3,1)}) + 15 \cdot (S_{(4,2)} \boxtimes S_{(3,2^3,1)}) + 7 \cdot (S_{(5,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(6)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,1^4)}) + 16 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1^4)}) + 7 \cdot (S_{(2^3)} \boxtimes S_{(3^2,1^4)}) + 11 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,1^4)}) + 24 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1^4)}) + 9 \cdot (S_{(3^2)} \boxtimes S_{(3^2,1^4)}) + 15 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,1^4)}) + 12 \cdot (S_{(4,2)} \boxtimes S_{(3^2,1^4)}) + 8 \cdot (S_{(5,1)} \boxtimes S_{(3^2,1^4)}) + (S_{(6)} \boxtimes S_{(3^2,1^4)}) + 4 \cdot (S_{(1^6)} \boxtimes S_{(3^2,2,1^2)}) + 17 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,2,1^2)}) + 26 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 17 \cdot (S_{(2^3)} \boxtimes S_{(3^2,2,1^2)}) + 28 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2,1^2)}) + 45 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2,1^2)}) + 13 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2,1^2)}) + 25 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 25 \cdot (S_{(4,2)} \boxtimes S_{(3^2,2,1^2)}) + 12 \cdot (S_{(5,1)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(6)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3^2,2^2)}) + 8 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,2^2)}) + 17 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2^2)}) + 4 \cdot (S_{(2^3)} \boxtimes S_{(3^2,2^2)}) + 16 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2^2)}) + 24 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2^2)}) + 10 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2^2)}) + 17 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2^2)}) + 11 \cdot (S_{(4,2)} \boxtimes S_{(3^2,2^2)}) + 8 \cdot (S_{(5,1)} \boxtimes S_{(3^2,2^2)}) + (S_{(6)} \boxtimes S_{(3^2,2^2)}) + (S_{(1^6)} \boxtimes S_{(3^3,1)}) + 8 \cdot (S_{(2,1^4)} \boxtimes S_{(3^3,1)}) + 11 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(2^3)} \boxtimes S_{(3^3,1)}) + 15 \cdot (S_{(3,1^3)} \boxtimes S_{(3^3,1)}) + 19 \cdot (S_{(3,2,1)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(3^3,1)}) + 11 \cdot (S_{(4,1^2)} \boxtimes S_{(3^3,1)}) + 10 \cdot (S_{(4,2)} \boxtimes S_{(3^3,1)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3^3,1)}) + (S_{(6)} \boxtimes S_{(3^3,1)}) + (S_{(1^6)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(4,1^6)}) + 7 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(4,1^6)}) + 7 \cdot (S_{(3,1^3)} \boxtimes S_{(4,1^6)}) + 9 \cdot (S_{(3,2,1)} \boxtimes S_{(4,1^6)}) + (S_{(3^2)} \boxtimes S_{(4,1^6)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(4,1^6)}) + (S_{(5,1)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(4,2,1^4)}) + 15 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2,1^4)}) + 21 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2,1^4)}) + 13 \cdot (S_{(2^3)} \boxtimes S_{(4,2,1^4)}) + 24 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2,1^4)}) + 33 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(3^2)} \boxtimes S_{(4,2,1^4)}) + 18 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2,1^4)}) + 17 \cdot (S_{(4,2)} \boxtimes S_{(4,2,1^4)}) + 8 \cdot (S_{(5,1)} \boxtimes S_{(4,2,1^4)}) + 2 \cdot (S_{(6)} \boxtimes S_{(4,2,1^4)}) + 4 \cdot (S_{(1^6)} \boxtimes S_{(4,2^2,1^2)}) + 18 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2^2,1^2)}) + 34 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 14 \cdot (S_{(2^3)} \boxtimes S_{(4,2^2,1^2)}) + 37 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2^2,1^2)}) + 52 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^2,1^2)}) + 15 \cdot (S_{(3^2)} \boxtimes S_{(4,2^2,1^2)}) + 34 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 22 \cdot (S_{(4,2)} \boxtimes S_{(4,2^2,1^2)}) + 11 \cdot (S_{(5,1)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(6)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(4,2^3)}) + 11 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2^3)}) + 14 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2^3)}) + 12 \cdot (S_{(2^3)} \boxtimes S_{(4,2^3)}) + 16 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2^3)}) + 28 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^3)}) + 7 \cdot (S_{(3^2)} \boxtimes S_{(4,2^3)}) + 13 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^3)}) + 19 \cdot (S_{(4,2)} \boxtimes S_{(4,2^3)}) + 9 \cdot (S_{(5,1)} \boxtimes S_{(4,2^3)}) + 3 \cdot (S_{(6)} \boxtimes S_{(4,2^3)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(4,3,1^3)}) + 16 \cdot (S_{(2,1^4)} \boxtimes S_{(4,3,1^3)}) + 26 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,1^3)}) + 15 \cdot (S_{(2^3)} \boxtimes S_{(4,3,1^3)}) + 28 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,1^3)}) + 46 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,1^3)}) + 14 \cdot (S_{(3^2)} \boxtimes S_{(4,3,1^3)}) + \cdots$ | 12902592 |

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| $(6,10)$ | $\cdots + 26\cdot(S_{(4,1^2)}\boxtimes S_{(4,3,1^3)}) + 27\cdot(S_{(4,2)}\boxtimes S_{(4,3,1^3)}) + 15\cdot(S_{(5,1)}\boxtimes S_{(4,3,1^3)}) + 4\cdot(S_{(6)}\boxtimes S_{(4,3,1^3)}) + 4\cdot(S_{(1^6)}\boxtimes S_{(4,3,2,1)}) + 19\cdot(S_{(2,1^4)}\boxtimes S_{(4,3,2,1)}) + 36\cdot(S_{(2^2,1^2)}\boxtimes S_{(4,3,2,1)}) + 21\cdot(S_{(2^3)}\boxtimes S_{(4,3,2,1)}) + 40\cdot(S_{(3,1^3)}\boxtimes S_{(4,3,2,1)}) + 64\cdot(S_{(3,2,1)}\boxtimes S_{(4,3,2,1)}) + 21\cdot(S_{(3^2)}\boxtimes S_{(4,3,2,1)}) + 40\cdot(S_{(4,1^2)}\boxtimes S_{(4,3,2,1)}) + 36\cdot(S_{(4,2)}\boxtimes S_{(4,3,2,1)}) + 19\cdot(S_{(5,1)}\boxtimes S_{(4,3,2,1)}) + 4\cdot(S_{(6)}\boxtimes S_{(4,3,2,1)}) + 4\cdot(S_{(2,1^4)}\boxtimes S_{(4,3^2)}) + 10\cdot(S_{(2^2,1^2)}\boxtimes S_{(4,3^2)}) + 3\cdot(S_{(2^3)}\boxtimes S_{(4,3^2)}) + 11\cdot(S_{(3,1^3)}\boxtimes S_{(4,3^2)}) + 17\cdot(S_{(3,2,1)}\boxtimes S_{(4,3^2)}) + 5\cdot(S_{(3^2)}\boxtimes S_{(4,3^2)}) + 12\cdot(S_{(4,1^2)}\boxtimes S_{(4,3^2)}) + 6\cdot(S_{(4,2)}\boxtimes S_{(4,3^2)}) + 4\cdot(S_{(5,1)}\boxtimes S_{(4,3^2)}) + (S_{(1^6)}\boxtimes S_{(4^2,1^2)}) + 5\cdot(S_{(2,1^4)}\boxtimes S_{(4^2,1^2)}) + 13\cdot(S_{(2^2,1^2)}\boxtimes S_{(4^2,1^2)}) + 4\cdot(S_{(2^3)}\boxtimes S_{(4^2,1^2)}) + 13\cdot(S_{(3,1^3)}\boxtimes S_{(4^2,1^2)}) + 23\cdot(S_{(3,2,1)}\boxtimes S_{(4^2,1^2)}) + 9\cdot(S_{(3^2)}\boxtimes S_{(4^2,1^2)}) + 18\cdot(S_{(4,1^2)}\boxtimes S_{(4^2,1^2)}) + 12\cdot(S_{(4,2)}\boxtimes S_{(4^2,1^2)}) + 10\cdot(S_{(5,1)}\boxtimes S_{(4^2,1^2)}) + (S_{(6)}\boxtimes S_{(4^2,1^2)}) + (S_{(1^6)}\boxtimes S_{(4^2,2)}) + 5\cdot(S_{(2,1^4)}\boxtimes S_{(4^2,2)}) + 8\cdot(S_{(2^2,1^2)}\boxtimes S_{(4^2,2)}) + 9\cdot(S_{(2^3)}\boxtimes S_{(4^2,2)}) + 9\cdot(S_{(3,1^3)}\boxtimes S_{(4^2,2)}) + 19\cdot(S_{(3,2,1)}\boxtimes S_{(4^2,2)}) + 5\cdot(S_{(3^2)}\boxtimes S_{(4^2,2)}) + 10\cdot(S_{(4,1^2)}\boxtimes S_{(4^2,2)}) + 16\cdot(S_{(4,2)}\boxtimes S_{(4^2,2)}) + 8\cdot(S_{(5,1)}\boxtimes S_{(4^2,2)}) + 3\cdot(S_{(6)}\boxtimes S_{(4^2,2)}) + 2\cdot(S_{(1^6)}\boxtimes S_{(5,1^5)}) + 4\cdot(S_{(2,1^4)}\boxtimes S_{(5,1^5)}) + 7\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,1^5)}) + 3\cdot(S_{(2^3)}\boxtimes S_{(5,1^5)}) + 5\cdot(S_{(3,1^3)}\boxtimes S_{(5,1^5)}) + 10\cdot(S_{(3,2,1)}\boxtimes S_{(5,1^5)}) + 4\cdot(S_{(3^2)}\boxtimes S_{(5,1^5)}) + 6\cdot(S_{(4,1^2)}\boxtimes S_{(5,1^5)}) + 6\cdot(S_{(4,2)}\boxtimes S_{(5,1^5)}) + 4\cdot(S_{(5,1)}\boxtimes S_{(5,1^5)}) + (S_{(6)}\boxtimes S_{(5,1^5)}) + 3\cdot(S_{(1^6)}\boxtimes S_{(5,2,1^3)}) + 11\cdot(S_{(2,1^4)}\boxtimes S_{(5,2,1^3)}) + 19\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,2,1^3)}) + 11\cdot(S_{(2^3)}\boxtimes S_{(5,2,1^3)}) + 20\cdot(S_{(3,1^3)}\boxtimes S_{(5,2,1^3)}) + 32\cdot(S_{(3,2,1)}\boxtimes S_{(5,2,1^3)}) + 10\cdot(S_{(3^2)}\boxtimes S_{(5,2,1^3)}) + 20\cdot(S_{(4,1^2)}\boxtimes S_{(5,2,1^3)}) + 18\cdot(S_{(4,2)}\boxtimes S_{(5,2,1^3)}) + 10\cdot(S_{(5,1)}\boxtimes S_{(5,2,1^3)}) + 3\cdot(S_{(6)}\boxtimes S_{(5,2,1^3)}) + 2\cdot(S_{(1^6)}\boxtimes S_{(5,2^2,1)}) + 10\cdot(S_{(2,1^4)}\boxtimes S_{(5,2^2,1)}) + 20\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,2^2,1)}) + 11\cdot(S_{(2^3)}\boxtimes S_{(5,2^2,1)}) + 20\cdot(S_{(3,1^3)}\boxtimes S_{(5,2^2,1)}) + 37\cdot(S_{(3,2,1)}\boxtimes S_{(5,2^2,1)}) + 13\cdot(S_{(3^2)}\boxtimes S_{(5,2^2,1)}) + 23\cdot(S_{(4,1^2)}\boxtimes S_{(5,2^2,1)}) + 22\cdot(S_{(4,2)}\boxtimes S_{(5,2^2,1)}) + 14\cdot(S_{(5,1)}\boxtimes S_{(5,2^2,1)}) + 4\cdot(S_{(6)}\boxtimes S_{(5,2^2,1)}) + (S_{(1^6)}\boxtimes S_{(5,3,1^2)}) + 10\cdot(S_{(2,1^4)}\boxtimes S_{(5,3,1^2)}) + 18\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,3,1^2)}) + 12\cdot(S_{(2^3)}\boxtimes S_{(5,3,1^2)}) + 24\cdot(S_{(3,1^3)}\boxtimes S_{(5,3,1^2)}) + 37\cdot(S_{(3,2,1)}\boxtimes S_{(5,3,1^2)}) + 10\cdot(S_{(3^2)}\boxtimes S_{(5,3,1^2)}) + 24\cdot(S_{(4,1^2)}\boxtimes S_{(5,3,1^2)}) + 23\cdot(S_{(4,2)}\boxtimes S_{(5,3,1^2)}) + 12\cdot(S_{(5,1)}\boxtimes S_{(5,3,1^2)}) + 4\cdot(S_{(6)}\boxtimes S_{(5,3,1^2)}) + (S_{(1^6)}\boxtimes S_{(5,3,2)}) + 6\cdot(S_{(2,1^4)}\boxtimes S_{(5,3,2)}) + 14\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,3,2)}) + 7\cdot(S_{(2^3)}\boxtimes S_{(5,3,2)}) + 16\cdot(S_{(3,1^3)}\boxtimes S_{(5,3,2)}) + 29\cdot(S_{(3,2,1)}\boxtimes S_{(5,3,2)}) + 11\cdot(S_{(3^2)}\boxtimes S_{(5,3,2)}) + 20\cdot(S_{(4,1^2)}\boxtimes S_{(5,3,2)}) + 18\cdot(S_{(4,2)}\boxtimes S_{(5,3,2)}) + 11\cdot(S_{(5,1)}\boxtimes S_{(5,3,2)}) + 3\cdot(S_{(6)}\boxtimes S_{(5,3,2)}) + 3\cdot(S_{(2,1^4)}\boxtimes S_{(5,4,1)}) + 7\cdot(S_{(2^2,1^2)}\boxtimes S_{(5,4,1)}) + 4\cdot(S_{(2^3)}\boxtimes S_{(5,4,1)}) + 10\cdot(S_{(3,1^3)}\boxtimes S_{(5,4,1)}) + 17\cdot(S_{(3,2,1)}\boxtimes S_{(5,4,1)}) + 6\cdot(S_{(3^2)}\boxtimes S_{(5,4,1)}) + 13\cdot(S_{(4,1^2)}\boxtimes S_{(5,4,1)}) + 12\cdot(S_{(4,2)}\boxtimes S_{(5,4,1)}) + 9\cdot(S_{(5,1)}\boxtimes S_{(5,4,1)}) + 3\cdot(S_{(6)}\boxtimes S_{(5,4,1)}) + (S_{(2^2,1^2)}\boxtimes S_{(5^2)}) + (S_{(3,1^3)}\boxtimes S_{(5^2)}) + 2\cdot(S_{(3,2,1)}\boxtimes S_{(5^2)}) + 2\cdot(S_{(3^2)}\boxtimes S_{(5^2)}) + 3\cdot(S_{(4,1^2)}\boxtimes S_{(5^2)}) + (S_{(4,2)}\boxtimes S_{(5^2)}) + 2\cdot(S_{(5,1)}\boxtimes S_{(5^2)}) + 2\cdot(S_{(2,1^4)}\boxtimes S_{(6,1^4)}) + 2\cdot(S_{(2^2,1^2)}\boxtimes S_{(6,1^4)}) + 2\cdot(S_{(2^3)}\boxtimes S_{(6,1^4)}) + 3\cdot(S_{(3,1^3)}\boxtimes S_{(6,1^4)}) + 6\cdot(S_{(3,2,1)}\boxtimes S_{(6,1^4)}) + 3\cdot(S_{(3^2)}\boxtimes S_{(6,1^4)}) + 3\cdot(S_{(4,1^2)}\boxtimes S_{(6,1^4)}) + 6\cdot(S_{(4,2)}\boxtimes S_{(6,1^4)}) + 4\cdot(S_{(5,1)}\boxtimes S_{(6,1^4)}) + 2\cdot(S_{(6)}\boxtimes S_{(6,1^4)}) + 2\cdot(S_{(2,1^4)}\boxtimes S_{(6,2,1^2)}) + 7\cdot(S_{(2^2,1^2)}\boxtimes S_{(6,2,1^2)}) + 3\cdot(S_{(2^3)}\boxtimes S_{(6,2,1^2)}) + 9\cdot(S_{(3,1^3)}\boxtimes S_{(6,2,1^2)}) + 16\cdot(S_{(3,2,1)}\boxtimes S_{(6,2,1^2)}) + 6\cdot(S_{(3^2)}\boxtimes S_{(6,2,1^2)}) + 13\cdot(S_{(4,1^2)}\boxtimes S_{(6,2,1^2)}) + 10\cdot(S_{(4,2)}\boxtimes S_{(6,2,1^2)}) + 7\cdot(S_{(5,1)}\boxtimes S_{(6,2,1^2)}) + 3\cdot(S_{(6)}\boxtimes S_{(6,2,1^2)}) + 2\cdot(S_{(2,1^4)}\boxtimes S_{(6,2^2)}) + 3\cdot(S_{(2^2,1^2)}\boxtimes S_{(6,2^2)}) + 4\cdot(S_{(2^3)}\boxtimes S_{(6,2^2)}) + 4\cdot(S_{(3,1^3)}\boxtimes S_{(6,2^2)}) + 10\cdot(S_{(3,2,1)}\boxtimes S_{(6,2^2)}) + 4\cdot(S_{(3^2)}\boxtimes S_{(6,2^2)}) + 5\cdot(S_{(4,1^2)}\boxtimes S_{(6,2^2)}) + 11\cdot(S_{(4,2)}\boxtimes S_{(6,2^2)}) + 7\cdot(S_{(5,1)}\boxtimes S_{(6,2^2)}) + 4\cdot(S_{(6)}\boxtimes S_{(6,2^2)}) + (S_{(2,1^4)}\boxtimes S_{(6,3,1)}) + 5\cdot(S_{(2^2,1^2)}\boxtimes S_{(6,3,1)}) + 3\cdot(S_{(2^3)}\boxtimes S_{(6,3,1)}) + 7\cdot(S_{(3,1^3)}\boxtimes S_{(6,3,1)}) + 14\cdot(S_{(3,2,1)}\boxtimes S_{(6,3,1)}) + 5\cdot(S_{(3^2)}\boxtimes S_{(6,3,1)}) + 12\cdot(S_{(4,1^2)}\boxtimes S_{(6,3,1)}) + 9\cdot(S_{(4,2)}\boxtimes S_{(6,3,1)}) + 6\cdot(S_{(5,1)}\boxtimes S_{(6,3,1)}) + 2\cdot(S_{(6)}\boxtimes S_{(6,3,1)}) + (S_{(2^2,1^2)}\boxtimes S_{(6,4)}) + 2\cdot(S_{(2^3)}\boxtimes S_{(6,4)}) + (S_{(3,1^3)}\boxtimes S_{(6,4)}) + 4\cdot(S_{(3,2,1)}\boxtimes S_{(6,4)}) + (S_{(3^2)}\boxtimes S_{(6,4)}) + 2\cdot(S_{(4,1^2)}\boxtimes S_{(6,4)}) + 5\cdot(S_{(4,2)}\boxtimes S_{(6,4)}) + 3\cdot(S_{(5,1)}\boxtimes S_{(6,4)}) + 2\cdot(S_{(6)}\boxtimes S_{(6,4)}) + (S_{(3,1^3)}\boxtimes S_{(7,1^3)}) + 2\cdot(S_{(3,2,1)}\boxtimes S_{(7,1^3)}) + 2\cdot(S_{(4,1^2)}\boxtimes S_{(7,1^3)}) + 2\cdot(S_{(4,2)}\boxtimes S_{(7,1^3)}) + (S_{(5,1)}\boxtimes S_{(7,1^3)}) + (S_{(6)}\boxtimes S_{(7,1^3)}) + 2\cdot(S_{(3,1^3)}\boxtimes S_{(7,2,1)}) + 3\cdot(S_{(3,2,1)}\boxtimes S_{(7,2,1)}) + 2\cdot(S_{(3^2)}\boxtimes S_{(7,2,1)}) + 4\cdot(S_{(4,1^2)}\boxtimes S_{(7,2,1)}) + 4\cdot(S_{(4,2)}\boxtimes S_{(7,2,1)}) + 3\cdot(S_{(5,1)}\boxtimes S_{(7,2,1)}) + 2\cdot(S_{(6)}\boxtimes S_{(7,2,1)}) + 2\cdot(S_{(3,2,1)}\boxtimes S_{(7,3)}) + (S_{(3^2)}\boxtimes S_{(7,3)}) + 2\cdot(S_{(4,1^2)}\boxtimes S_{(7,3)}) + 2\cdot(S_{(4,2)}\boxtimes S_{(7,3)}) + 2\cdot(S_{(5,1)}\boxtimes S_{(7,3)}) + (S_{(6)}\boxtimes S_{(7,3)}) + (S_{(4,1^2)}\boxtimes S_{(8,1^2)}) + (S_{(4,2)}\boxtimes S_{(8,2)}) + (S_{(5,1)}\boxtimes S_{(8,2)}) + (S_{(6)}\boxtimes S_{(8,2)})$ | 12902592 |

$(S_{(4,1^3)} \boxtimes S_{(1^{10})}) + (S_{(3,2,1^2)} \boxtimes S_{(2,1^8)}) + (S_{(4,1^3)} \boxtimes S_{(2,1^8)}) + (S_{(4,2,1)} \boxtimes S_{(2,1^8)}) + (S_{(5,1^2)} \boxtimes S_{(2,1^8)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(3,2^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(3^2,1)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(2^2,1^6)}) + (S_{(5,1^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(5,2)} \boxtimes S_{(2^2,1^6)}) + (S_{(1^7)} \boxtimes S_{(2^3,1^4)}) + (S_{(2,1^5)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2^3,1)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(2^3,1^4)}) + 7 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(3,2^2)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(4,1^3)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(2^3,1^4)}) + (S_{(4,3)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(2,1^5)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(2^3,1)} \boxtimes S_{(2^4,1^2)}) + 5 \cdot (S_{(3,1^4)} \boxtimes S_{(2^4,1^2)}) + 7 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^4,1^2)}) + 5 \cdot (S_{(3,2^2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(2^4,1^2)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(2^4,1^2)}) + (S_{(4,3)} \boxtimes S_{(2^4,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(5,2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^5)}) + (S_{(3,1^4)} \boxtimes S_{(2^5)}) + 5 \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(2^5)}) + (S_{(5,1^2)} \boxtimes S_{(2^5)}) + (S_{(1^7)} \boxtimes S_{(3,1^7)}) + 3 \cdot (S_{(2,1^5)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(3,2^2)} \boxtimes S_{(3,1^7)}) + (S_{(3^2,1)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(3,1^7)}) + (S_{(4,3)} \boxtimes S_{(3,1^7)}) + (S_{(5,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(5,2)} \boxtimes S_{(3,1^7)}) + (S_{(6,1)} \boxtimes S_{(3,1^7)}) + (S_{(1^7)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(2,1^5)} \boxtimes S_{(3,2,1^5)}) + 8 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2,1^5)}) + 8 \cdot (S_{(3,1^4)} \boxtimes S_{(3,2,1^5)}) + 12 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(3,2^2)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(3,2,1^5)}) + 6 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2,1^5)}) + 7 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(3,2,1^5)}) + (S_{(6,1)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(1^7)} \boxtimes S_{(3,2^2,1^3)}) + 8 \cdot (S_{(2,1^5)} \boxtimes S_{(3,2^2,1^3)}) + 12 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + 11 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^2,1^3)}) + 11 \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^2,1^3)}) + 21 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 12 \cdot (S_{(3,2^2)} \boxtimes S_{(3,2^2,1^3)}) + 10 \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^2,1^3)}) + 9 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^2,1^3)}) + 15 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^2,1^3)}) + 5 \cdot (S_{(4,3)} \boxtimes S_{(3,2^2,1^3)}) + 5 \cdot (S_{(5,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 4 \cdot (S_{(5,2)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(6,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(1^7)} \boxtimes S_{(3,2^3,1)}) + 5 \cdot (S_{(2,1^5)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot$

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$(S_{(2^2,1^3)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^3,1)}) + 19 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot (S_{(3,2^2)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^3,1)}) + 13 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(4,3)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(5,1^2)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(3,2^3,1)}) + (S_{(6,1)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,1^4)}) + 7 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,1^4)}) + 5 \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,1^4)}) + 10 \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,1^4)}) + 15 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,1^4)}) + 7 \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,1^4)}) + 10 \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,1^4)}) + 10 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(3^2,1^4)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(3^2,1^4)}) + (S_{(1^7)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,2,1^2)}) + 13 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,2,1^2)}) + 11 \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,2,1^2)}) + 12 \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,2,1^2)}) + 27 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 14 \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2,1^2)}) + 15 \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,2,1^2)}) + 14 \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2,1^2)}) + 20 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,2,1^2)}) + 7 \cdot (S_{(4,3)} \boxtimes S_{(3^2,2,1^2)}) + 7 \cdot (S_{(5,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(5,2)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(6,1)} \boxtimes S_{(3^2,2,1^2)}) + 3 \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,2^2)}) + 5 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,2^2)}) + 7 \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,2^2)}) + 7 \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,2^2)}) + 14 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2^2)}) + 10 \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2^2)}) + 6 \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,2^2)}) + 7 \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2^2)}) + 12 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(4,3)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(3^2,2^2)}) + (S_{(1^7)} \boxtimes S_{(3^3,1)}) + 2 \cdot (S_{(2,1^5)} \boxtimes S_{(3^3,1)}) + 5 \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^3,1)}) + 6 \cdot (S_{(2^3,1)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(3^3,1)}) + 10 \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(3,2^2)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(3^2,1)} \boxtimes S_{(3^3,1)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(3^3,1)}) + 10 \cdot (S_{(4,2,1)} \boxtimes S_{(3^3,1)}) + 5 \cdot (S_{(4,3)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(3^3,1)}) + (S_{(6,1)} \boxtimes S_{(3^3,1)}) + (S_{(1^7)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(2,1^5)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(2^3,1)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(3,1^4)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(3,2^2)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,1^6)}) + (S_{(6,1)} \boxtimes S_{(4,1^6)}) + (S_{(7)} \boxtimes S_{(4,1^6)}) + 2 \cdot (S_{(1^7)} \boxtimes S_{(4,2,1^4)}) + 6 \cdot (S_{(2,1^5)} \boxtimes S_{(4,2,1^4)}) + 11 \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(2^3,1)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(3,1^4)} \boxtimes S_{(4,2,1^4)}) + 19 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(3,2^2)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(3^2,1)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(4,1^3)} \boxtimes S_{(4,2,1^4)}) + 14 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2,1^4)}) + 4 \cdot (S_{(4,3)} \boxtimes S_{(4,2,1^4)}) + 6 \cdot (S_{(5,1^2)} \boxtimes S_{(4,2,1^4)}) + \cdots$

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\cdot (S_{(2^2,1^3)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(4^2,2)}) + 9 \cdot (S_{(3,2,1^2)} \boxtimes S_{(4^2,2)}) + 4 \cdot (S_{(3,2^2)} \boxtimes S_{(4^2,2)}) + 8 \cdot (S_{(3^2,1)} \boxtimes S_{(4^2,2)}) + 6 \cdot (S_{(4,1^3)} \boxtimes S_{(4^2,2)}) + 9 \cdot (S_{(4,2,1)} \boxtimes S_{(4^2,2)}) + 4 \cdot (S_{(4,3)} \boxtimes S_{(4^2,2)}) + 5 \cdot (S_{(5,1^2)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(4^2,2)}) + (S_{(6,1)} \boxtimes S_{(4^2,2)}) + (S_{(2,1^5)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,1^5)}) + (S_{(2^3,1)} \boxtimes S_{(5,1^5)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(3,2^2)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(5,1^5)}) + (S_{(4,3)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(5,1^5)}) + (S_{(5,2)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(2,1^5)} \boxtimes S_{(5,2,1^3)}) + 5 \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(2^3,1)} \boxtimes S_{(5,2,1^3)}) + 6 \cdot (S_{(3,1^4)} \boxtimes S_{(5,2,1^3)}) + 14 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,2,1^3)}) + 8 \cdot (S_{(3,2^2)} \boxtimes S_{(5,2,1^3)}) + 9 \cdot (S_{(3^2,1)} \boxtimes S_{(5,2,1^3)}) + 9 \cdot (S_{(4,1^3)} \boxtimes S_{(5,2,1^3)}) + 16 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2,1^3)}) + 6 \cdot (S_{(4,3)} \boxtimes S_{(5,2,1^3)}) + 8 \cdot (S_{(5,1^2)} \boxtimes S_{(5,2,1^3)}) + 8 \cdot (S_{(5,2)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(6,1)} \boxtimes S_{(5,2,1^3)}) + (S_{(7)} \boxtimes S_{(5,2,1^3)}) + (S_{(2,1^5)} \boxtimes S_{(5,2^2,1)}) + 4 \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,2^2,1)}) + 5 \cdot (S_{(2^3,1)} \boxtimes S_{(5,2^2,1)}) + 6 \cdot (S_{(3,1^4)} \boxtimes S_{(5,2^2,1)}) + 15 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,2^2,1)}) + 9 \cdot (S_{(3,2^2)} \boxtimes S_{(5,2^2,1)}) + 10 \cdot (S_{(3^2,1)} \boxtimes S_{(5,2^2,1)}) + 11 \cdot (S_{(4,1^3)} \boxtimes S_{(5,2^2,1)}) + 18 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2^2,1)}) + 8 \cdot (S_{(4,3)} \boxtimes S_{(5,2^2,1)}) + 9 \cdot (S_{(5,1^2)} \boxtimes S_{(5,2^2,1)}) + 8 \cdot (S_{(5,2)} \boxtimes S_{(5,2^2,1)}) + 4 \cdot (S_{(6,1)} \boxtimes S_{(5,2^2,1)}) + (S_{(7)} \boxtimes S_{(5,2^2,1)}) + (S_{(2,1^5)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,3,1^2)}) + 5 \cdot (S_{(2^3,1)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(3,1^4)} \boxtimes S_{(5,3,1^2)}) + 14 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,3,1^2)}) + 10 \cdot (S_{(3,2^2)} \boxtimes S_{(5,3,1^2)}) + 12 \cdot (S_{(3^2,1)} \boxtimes S_{(5,3,1^2)}) + 9 \cdot (S_{(4,1^3)} \boxtimes S_{(5,3,1^2)}) + 20 \cdot (S_{(4,2,1)} \boxtimes S_{(5,3,1^2)}) + 10 \cdot (S_{(4,3)} \boxtimes S_{(5,3,1^2)}) + 11 \cdot (S_{(5,1^2)} \boxtimes S_{(5,3,1^2)}) + 11 \cdot (S_{(5,2)} \boxtimes S_{(5,3,1^2)}) + 6 \cdot (S_{(6,1)} \boxtimes S_{(5,3,1^2)}) + (S_{(7)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,3,2)}) + 4 \cdot (S_{(2^3,1)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(3,1^4)} \boxtimes S_{(5,3,2)}) + 11 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,3,2)}) + 8 \cdot (S_{(3,2^2)} \boxtimes S_{(5,3,2)}) + 8 \cdot (S_{(3^2,1)} \boxtimes S_{(5,3,2)}) + 7 \cdot (S_{(4,1^3)} \boxtimes S_{(5,3,2)}) + 16 \cdot (S_{(4,2,1)} \boxtimes S_{(5,3,2)}) + 7 \cdot (S_{(4,3)} \boxtimes S_{(5,3,2)}) + 7 \cdot (S_{(5,1^2)} \boxtimes S_{(5,3,2)}) + 8 \cdot (S_{(5,2)} \boxtimes S_{(5,3,2)}) + 4 \cdot (S_{(6,1)} \boxtimes S_{(5,3,2)}) + (S_{(7)} \boxtimes S_{(5,3,2)}) + (S_{(2^2,1^3)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(2^3,1)} \boxtimes S_{(5,4,1)}) + (S_{(3,1^4)} \boxtimes S_{(5,4,1)}) + 6 \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,4,1)}) + 5 \cdot (S_{(3,2^2)} \boxtimes S_{(5,4,1)}) + 5 \cdot (S_{(3^2,1)} \boxtimes S_{(5,4,1)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(5,4,1)}) + 10 \cdot (S_{(4,2,1)} \boxtimes S_{(5,4,1)}) + 5 \cdot (S_{(4,3)} \boxtimes S_{(5,4,1)}) + 5 \cdot (S_{(5,1^2)} \boxtimes S_{(5,4,1)}) + 5 \cdot (S_{(5,2)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(5,4,1)}) + (S_{(3,2,1^2)} \boxtimes S_{(5^2)}) + (S_{(3,2^2)} \boxtimes S_{(5^2)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(5^2)}) + (S_{(5,2)} \boxtimes S_{(5^2)}) + \cdots$$

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| $(7,10)$ | $\cdots + (S_{(3,1^4)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(3,2,1^2)} \boxtimes S_{(6,1^4)}) + (S_{(3^2,1)} \boxtimes S_{(6,1^4)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(6,1^4)}) + (S_{(4,3)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(5,1^2)} \boxtimes S_{(6,1^4)}) + (S_{(5,2)} \boxtimes S_{(6,1^4)}) + (S_{(6,1)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(3,1^4)} \boxtimes S_{(6,2,1^2)}) + 4 \cdot (S_{(3,2,1^2)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(3,2^2)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(6,2,1^2)}) + 5 \cdot (S_{(4,1^3)} \boxtimes S_{(6,2,1^2)}) + 10 \cdot (S_{(4,2,1)} \boxtimes S_{(6,2,1^2)}) + 5 \cdot (S_{(4,3)} \boxtimes S_{(6,2,1^2)}) + 6 \cdot (S_{(5,1^2)} \boxtimes S_{(6,2,1^2)}) + 8 \cdot (S_{(5,2)} \boxtimes S_{(6,2,1^2)}) + 5 \cdot (S_{(6,1)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(7)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(3,2,1^2)} \boxtimes S_{(6,2^2)}) + (S_{(3,2^2)} \boxtimes S_{(6,2^2)}) + 3 \cdot (S_{(3^2,1)} \boxtimes S_{(6,2^2)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(6,2^2)}) + 6 \cdot (S_{(4,2,1)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(6,2^2)}) + 6 \cdot (S_{(5,1^2)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(6,2^2)}) + (S_{(6,1)} \boxtimes S_{(6,2^2)}) + (S_{(3,1^4)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(3,2,1^2)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(3,2^2)} \boxtimes S_{(6,3,1)}) + 4 \cdot (S_{(3^2,1)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(6,3,1)}) + 8 \cdot (S_{(4,2,1)} \boxtimes S_{(6,3,1)}) + 5 \cdot (S_{(4,3)} \boxtimes S_{(6,3,1)}) + 5 \cdot (S_{(5,1^2)} \boxtimes S_{(6,3,1)}) + 7 \cdot (S_{(5,2)} \boxtimes S_{(6,3,1)}) + 5 \cdot (S_{(6,1)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(7)} \boxtimes S_{(6,3,1)}) + (S_{(3,2,1^2)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(3^2,1)} \boxtimes S_{(6,4)}) + (S_{(4,1^3)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(6,4)}) + (S_{(4,3)} \boxtimes S_{(6,4)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(6,4)}) + (S_{(5,2)} \boxtimes S_{(6,4)}) + (S_{(6,1)} \boxtimes S_{(6,4)}) + (S_{(4,1^3)} \boxtimes S_{(7,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(7,1^3)}) + (S_{(4,3)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(7,1^3)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(7,1^3)}) + (S_{(7)} \boxtimes S_{(7,1^3)}) + (S_{(4,1^3)} \boxtimes S_{(7,2,1)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(7,2,1)}) + (S_{(4,3)} \boxtimes S_{(7,2,1)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(7,2,1)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(7,2,1)}) + (S_{(7)} \boxtimes S_{(7,2,1)}) + (S_{(4,1^3)} \boxtimes S_{(7,3)}) + (S_{(4,2,1)} \boxtimes S_{(7,3)}) + (S_{(4,3)} \boxtimes S_{(7,3)}) + (S_{(5,1^2)} \boxtimes S_{(7,3)}) + (S_{(5,2)} \boxtimes S_{(7,3)}) + (S_{(6,1)} \boxtimes S_{(7,3)}) + (S_{(7)} \boxtimes S_{(7,3)}) + (S_{(5,2)} \boxtimes S_{(8,1^2)}) + (S_{(6,1)} \boxtimes S_{(8,1^2)}) + (S_{(7)} \boxtimes S_{(8,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(8,2)})$ | 20110187 |

| $(8,10)$ | $(S_{(3,1^5)} \boxtimes S_{(1^{10})}) + (S_{(2^2,1^4)} \boxtimes S_{(2,1^8)}) + (S_{(3,1^5)} \boxtimes S_{(2,1^8)}) + (S_{(3,2,1^3)} \boxtimes S_{(2,1^8)}) + (S_{(4,1^4)} \boxtimes S_{(2,1^8)}) + 2 \cdot (S_{(2,1^6)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^2,1^4)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^3,1^2)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3,1^5)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^2,1^6)}) + (S_{(3,2^2,1)} \boxtimes S_{(2^2,1^6)}) + (S_{(4,1^4)} \boxtimes S_{(2^2,1^6)}) + (S_{(4,2,1^2)} \boxtimes S_{(2^2,1^6)}) + (S_{(2,1^6)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(2^2,1^4)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^3,1^2)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^4)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(3,1^5)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(3,2^2,1)} \boxtimes S_{(2^3,1^4)}) + (S_{(3^2,1^2)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(2^3,1^4)}) + (S_{(4,2,1^2)} \boxtimes S_{(2^3,1^4)}) + (S_{(4,2^2)} \boxtimes S_{(2^3,1^4)}) + (S_{(2,1^6)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^2,1^4)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(2^3,1^2)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(3,1^5)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(3,2^2,1)} \boxtimes S_{(2^4,1^2)}) + (S_{(3^2,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(3^2,2)} \boxtimes S_{(2^4,1^2)}) + (S_{(4,1^4)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^2,1^4)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(2^4)} \boxtimes S_{(2^5)}) + (S_{(3,1^5)} \boxtimes S_{(2^5)}) + (S_{(3,2,1^3)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(3,2^2,1)} \boxtimes S_{(2^5)}) + (S_{(3^2,1^2)} \boxtimes S_{(2^5)}) + (S_{(4,1^4)} \boxtimes S_{(2^5)}) + (S_{(4,2^2)} \boxtimes S_{(2^5)}) + (S_{(1^8)} \boxtimes S_{(3,1^7)}) + (S_{(2,1^6)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(2^2,1^4)} \boxtimes S_{(3,1^7)}) + (S_{(2^3,1^2)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,1^7)}) + (S_{(3^2,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(4,1^4)} \boxtimes S_{(3,1^7)}) + (S_{(4,2,1^2)} \boxtimes S_{(3,1^7)}) + (S_{(5,1^3)} \boxtimes S_{(3,1^7)}) + (S_{(1^8)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(2,1^6)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(2^2,1^4)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(2^3,1^2)} \boxtimes S_{(3,2,1^5)}) + (S_{(2^4)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(3,1^5)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(3,2^2,1)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(3,2,1^5)}) + (S_{(3^2,2)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2,1^5)}) + (S_{(4,2^2)} \boxtimes S_{(3,2,1^5)}) + (S_{(4,3,1)} \boxtimes S_{(3,2,1^5)}) + (S_{(5,1^3)} \boxtimes S_{(3,2,1^5)}) + (S_{(5,2,1)} \boxtimes S_{(3,2,1^5)}) + (S_{(1^8)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(2,1^6)} \boxtimes 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S_{(3,2^3,1)}) + 7 \cdot (S_{(3,2^2,1)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(3^2,1^2)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(3^2,2)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(3,2^3,1)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(5,1^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(5,2,1)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(2,1^6)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(2^2,1^4)} \boxtimes S_{(3^2,1^4)}) + 3 \cdot (S_{(2^3,1^2)} \boxtimes S_{(3^2,1^4)}) + (S_{(2^4)} \boxtimes S_{(3^2,1^4)}) + 4 \cdot (S_{(3,1^5)} \boxtimes S_{(3^2,1^4)}) + 5 \cdot (S_{(3,2,1^3)} \boxtimes S_{(3^2,1^4)}) + 5 \cdot (S_{(3,2^2,1)} \boxtimes S_{(3^2,1^4)}) + (S_{(3^2,1^2)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(3^2,1^4)}) + 4 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(4,2^2)} \boxtimes 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\cdot (S_{(4,1^4)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(4,2,1^4)}) + \cdots$ | 20563237 |

$(8, 10)$	$\cdots + (S_{(4^2)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(5,1^3)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(5,2,1)} \boxtimes S_{(4,2,1^4)}) + (S_{(5,3)} \boxtimes S_{(4,2,1^4)}) + (S_{(6,1^2)} \boxtimes S_{(4,2,1^4)}) + (S_{(6,2)} \boxtimes S_{(4,2,1^4)}) + (S_{(2,1^6)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(2^2,1^4)} \boxtimes S_{(4,2^2,1^2)}) + 4 \cdot (S_{(2^3,1^2)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(2^4)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(3,1^5)} \boxtimes S_{(4,2^2,1^2)}) + 7 \cdot (S_{(3,2,1^3)} \boxtimes S_{(4,2^2,1^2)}) + 7 \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,2^2,1^2)}) + 6 \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 4 \cdot (S_{(3^2,2)} \boxtimes S_{(4,2^2,1^2)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(4,2^2,1^2)}) + 10 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(4,2^2,1^2)}) + 6 \cdot (S_{(4,3,1)} \boxtimes S_{(4,2^2,1^2)}) + 4 \cdot (S_{(5,1^3)} \boxtimes S_{(4,2^2,1^2)}) + 5 \cdot (S_{(5,2,1)} \boxtimes 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S_{(4,3,2,1)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(4,3,2,1)}) + 10 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3,2,1)}) + 7 \cdot (S_{(4,2^2)} \boxtimes S_{(4,3,2,1)}) + 9 \cdot (S_{(4,3,1)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4^2)} \boxtimes S_{(4,3,2,1)}) + 3 \cdot (S_{(5,1^3)} \boxtimes S_{(4,3,2,1)}) + 6 \cdot (S_{(5,2,1)} \boxtimes S_{(4,3,2,1)}) + 3 \cdot (S_{(5,3)} \boxtimes S_{(4,3,2,1)}) + (S_{(6,1^2)} \boxtimes S_{(4,3,2,1)}) + (S_{(6,2)} \boxtimes S_{(4,3,2,1)}) + (S_{(2^3,1^2)} \boxtimes S_{(4,3^2)}) + (S_{(3,2,1^3)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(4,3^2)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3^2)}) + (S_{(4,2^2)} \boxtimes S_{(4,3^2)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(4,3^2)}) + (S_{(5,1^3)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(4,3^2)}) + (S_{(6,1^2)} \boxtimes S_{(4,3^2)}) + (S_{(2^3,1^2)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3,2,1^3)} \boxtimes S_{(4^2,1^2)}) + 3 \cdot (S_{(3,2^2,1)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(4^2,1^2)}) + 3 \cdot (S_{(3^2,2)} \boxtimes S_{(4^2,1^2)}) + 4 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(4^2,1^2)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(4^2,1^2)}) + (S_{(2^4)} \boxtimes S_{(4^2,2)}) + (S_{(3,2,1^3)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(3,2^2,1)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(4^2,2)}) + (S_{(3^2,2)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4^2,2)}) + 4 \cdot (S_{(4,2^2)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(4^2)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(4^2,2)}) + (S_{(5,3)} \boxtimes S_{(4^2,2)}) + (S_{(6,2)} \boxtimes S_{(4^2,2)}) + (S_{(3,1^5)} \boxtimes S_{(5,1^5)}) + (S_{(3,2,1^3)} 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+ 4 \cdot (S_{(3^2,1^2)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(5,3,1^2)}) + 6 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(4,2^2)} \boxtimes S_{(5,3,1^2)}) + 6 \cdot (S_{(4,3,1)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(4^2)} \boxtimes S_{(5,3,1^2)}) + 4 \cdot (S_{(5,1^3)} \boxtimes S_{(5,3,1^2)}) + 6 \cdot (S_{(5,2,1)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(6,1^2)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(5,3,1^2)}) + (S_{(3,2,1^3)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(3,2^2,1)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(3^2,2)} \boxtimes S_{(5,3,2)}) + (S_{(4,1^4)} \boxtimes S_{(5,3,2)}) + 4 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(5,3,2)}) + 5 \cdot (S_{(4,3,1)} \boxtimes S_{(5,3,2)}) + (S_{(4^2)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(5,3,2)}) + 5 \cdot (S_{(5,2,1)} \boxtimes S_{(5,3,2)}) + 4 \cdot (S_{(5,3)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(6,1^2)} \boxtimes S_{(5,3,2)}) + \cdots$	20563237

$(8,10)$	$\cdots + 2 \cdot (S_{(6,2)} \boxtimes S_{(5,3,2)}) + (S_{(7,1)} \boxtimes S_{(5,3,2)}) + (S_{(3,2^2,1)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(3^2,1^2)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(5,4,1)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(5,4,1)}) + (S_{(4^2)} \boxtimes S_{(5,4,1)}) + 3 \cdot (S_{(5,2,1)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(5,4,1)}) + (S_{(6,2)} \boxtimes S_{(5,4,1)}) + (S_{(3^2,2)} \boxtimes S_{(5^2)}) + (S_{(4,3,1)} \boxtimes S_{(5^2)}) + (S_{(5,3)} \boxtimes S_{(5^2)}) + (S_{(4,1^4)} \boxtimes S_{(6,1^4)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,1^4)}) + (S_{(4,2^2)} \boxtimes S_{(6,1^4)}) + (S_{(5,1^3)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(6,1^4)}) + (S_{(5,3)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(6,1^4)}) + (S_{(7,1)} \boxtimes S_{(6,1^4)}) + (S_{(8)} \boxtimes S_{(6,1^4)}) + (S_{(4,1^4)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(6,2,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(6,2,1^2)}) + 3 \cdot (S_{(5,1^3)} \boxtimes S_{(6,2,1^2)}) + 5 \cdot (S_{(5,2,1)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(6,2,1^2)}) + 4 \cdot (S_{(6,1^2)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(6,2,1^2)}) + (S_{(4,1^4)} \boxtimes S_{(6,2^2)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(6,2^2)}) + (S_{(4,3,1)} \boxtimes S_{(6,2^2)}) + (S_{(4^2)} \boxtimes S_{(6,2^2)}) + (S_{(5,1^3)} \boxtimes S_{(6,2^2)}) + 3 \cdot (S_{(5,2,1)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(6,2^2)}) + (S_{(6,1^2)} \boxtimes S_{(6,2^2)}) + 4 \cdot (S_{(6,2)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(6,2^2)}) + (S_{(8)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(6,3,1)}) + (S_{(4,2^2)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(6,3,1)}) + (S_{(4^2)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(6,3,1)}) + 4 \cdot (S_{(5,2,1)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(6,3,1)}) + 3 \cdot (S_{(6,1^2)} \boxtimes S_{(6,3,1)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(6,3,1)}) + (S_{(7,1)} \boxtimes S_{(6,3,1)}) + (S_{(4,2^2)} \boxtimes S_{(6,4)}) + (S_{(4,3,1)} \boxtimes S_{(6,4)}) + (S_{(4^2)} \boxtimes S_{(6,4)}) + (S_{(5,2,1)} \boxtimes S_{(6,4)}) + (S_{(5,3)} \boxtimes S_{(6,4)}) + (S_{(6,2)} \boxtimes S_{(6,4)}) + (S_{(5,1^3)} \boxtimes S_{(7,1^3)}) + (S_{(5,2,1)} \boxtimes S_{(7,1^3)}) + (S_{(6,1^2)} \boxtimes S_{(7,1^3)}) + (S_{(6,2)} \boxtimes S_{(7,1^3)}) + (S_{(5,1^3)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(7,2,1)}) + (S_{(5,3)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(6,1^2)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(7,2,1)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(7,2,1)}) + (S_{(8)} \boxtimes S_{(7,2,1)}) + (S_{(5,2,1)} \boxtimes S_{(7,3)}) + (S_{(5,3)} \boxtimes S_{(7,3)}) + (S_{(6,1^2)} \boxtimes S_{(7,3)}) + (S_{(6,2)} \boxtimes S_{(7,3)}) + (S_{(7,1)} \boxtimes S_{(7,3)}) + (S_{(6,1^2)} \boxtimes S_{(8,1^2)}) + (S_{(6,2)} \boxtimes S_{(8,2)}) + (S_{(7,1)} \boxtimes S_{(8,2)}) + (S_{(8)} \boxtimes S_{(8,2)})$	20563237

$(S_{(2,1^7)} \boxtimes S_{(1^{10})}) + (S_{(2,1^7)} \boxtimes S_{(2,1^8)}) + (S_{(2^2,1^5)} \boxtimes S_{(2,1^8)}) + (S_{(3,1^6)} \boxtimes S_{(2,1^8)}) + (S_{(1^9)} \boxtimes S_{(2^2,1^6)}) + (S_{(2,1^7)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^2,1^5)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^3,1^3)} \boxtimes S_{(2^2,1^6)}) + (S_{(3,1^6)} \boxtimes S_{(2^2,1^6)}) + (S_{(3,2,1^4)} \boxtimes S_{(2^2,1^6)}) + (S_{(2,1^7)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^2,1^5)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^3,1^3)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^4,1)} \boxtimes S_{(2^3,1^4)}) + (S_{(3,1^6)} \boxtimes S_{(2^3,1^4)}) + (S_{(3,2,1^4)} \boxtimes S_{(2^3,1^4)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^2,1^5)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^3,1^3)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^4,1)} \boxtimes S_{(2^4,1^2)}) + (S_{(3,2,1^4)} \boxtimes S_{(2^4,1^2)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(3,2^3)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^3,1^3)} \boxtimes S_{(2^5)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(2^5)}) + (S_{(2^2,1^5)} \boxtimes S_{(3,1^7)}) + (S_{(3,1^6)} \boxtimes S_{(3,1^7)}) + (S_{(3,2,1^4)} \boxtimes S_{(3,1^7)}) + (S_{(4,1^5)} \boxtimes S_{(3,1^7)}) + (S_{(2,1^7)} \boxtimes S_{(3,2,1^5)}) + (S_{(2^2,1^5)} \boxtimes S_{(3,2,1^5)}) + (S_{(2^3,1^3)} \boxtimes S_{(3,2,1^5)}) + (S_{(3,1^6)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,2,1^5)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(3,2,1^5)}) + (S_{(3^2,1^3)} \boxtimes S_{(3,2,1^5)}) + (S_{(4,1^5)} \boxtimes S_{(3,2,1^5)}) + (S_{(4,2,1^3)} \boxtimes S_{(3,2,1^5)}) + (S_{(2^2,1^5)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(2^3,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(2^4,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3,1^6)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3,2^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3^2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3^2,2,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(4,1^5)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(4,2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(4,2^2,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(2^3,1^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(2^4,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(3,2,1^4)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3,2^3,1)}) + (S_{(3,2^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(3^2,1^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(3^2,2,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(4,2,1^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(4,2^2,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(2^2,1^5)} \boxtimes S_{(3^2,1^4)}) + (S_{(2^3,1^3)} \boxtimes S_{(3^2,1^4)}) + (S_{(3,2,1^4)} \boxtimes S_{(3^2,1^4)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(3^2,1^4)}) + (S_{(3^2,1^3)} \boxtimes S_{(3^2,1^4)}) + (S_{(3^2,2,1)} \boxtimes S_{(3^2,1^4)}) + (S_{(4,2,1^3)} \boxtimes S_{(3^2,1^4)}) + (S_{(4,3,1^2)} \boxtimes S_{(3^2,1^4)}) + (S_{(2^3,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(2^4,1)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(3,2,1^4)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(3,2^2,1^2)} \boxtimes 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\boxtimes S_{(4,2^2,1^2)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(4,2^3)}) + (S_{(3^2,2,1)} \boxtimes S_{(4,2^3)}) + (S_{(4,2,1^3)} \boxtimes S_{(4,2^3)}) + (S_{(4,2^2,1)} \boxtimes S_{(4,2^3)}) + (S_{(4,3,1^2)} \boxtimes S_{(4,2^3)}) + (S_{(5,2,1^2)} \boxtimes S_{(4,2^3)}) + (S_{(3,2,1^4)} \boxtimes S_{(4,3,1^3)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(4,3,1^3)}) + (S_{(3^2,1^3)} \boxtimes S_{(4,3,1^3)}) + (S_{(3^2,2,1)} \boxtimes S_{(4,3,1^3)}) + (S_{(4,2,1^3)} \boxtimes S_{(4,3,1^3)}) + (S_{(4,2^2,1)} \boxtimes S_{(4,3,1^3)}) + 2 \cdot (S_{(4,3,1^2)} \boxtimes S_{(4,3,1^3)}) + (S_{(4,3,2)} \boxtimes S_{(4,3,1^3)}) + (S_{(4^2,1)} \boxtimes S_{(4,3,1^3)}) + (S_{(5,2,1^2)} \boxtimes S_{(4,3,1^3)}) + (S_{(5,3,1)} \boxtimes S_{(4,3,1^3)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(4,3,2,1)}) + (S_{(3,2^3)} \boxtimes S_{(4,3,2,1)}) + (S_{(3^2,1^3)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(3^2,2,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(3^3)} \boxtimes S_{(4,3,2,1)}) + (S_{(4,2,1^3)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot 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S_{(5,1^5)}) + (S_{(5,2,1^2)} \boxtimes S_{(5,1^5)}) + (S_{(6,1^3)} \boxtimes S_{(5,1^5)}) + (S_{(4,1^5)} \boxtimes S_{(5,2,1^3)}) + (S_{(4,2,1^3)} \boxtimes S_{(5,2,1^3)}) + (S_{(4,2^2,1)} \boxtimes S_{(5,2,1^3)}) + (S_{(4,3,1^2)} \boxtimes S_{(5,2,1^3)}) + (S_{(5,1^4)} \boxtimes S_{(5,2,1^3)}) + 2 \cdot (S_{(5,2,1^2)} \boxtimes S_{(5,2,1^3)}) + (S_{(5,2^2)} \boxtimes S_{(5,2,1^3)}) + (S_{(5,3,1)} \boxtimes S_{(5,2,1^3)}) + (S_{(6,1^3)} \boxtimes S_{(5,2,1^3)}) + (S_{(6,2,1)} \boxtimes S_{(5,2,1^3)}) + (S_{(4,2,1^3)} \boxtimes S_{(5,2^2,1)}) + (S_{(4,2^2,1)} \boxtimes S_{(5,2^2,1)}) + \cdots$

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$(9,10)$	$\cdots+(S_{(4,3,1^2)}\boxtimes S_{(5,2^2,1)})+(S_{(4,3,2)}\boxtimes S_{(5,2^2,1)})+(S_{(5,1^4)}\boxtimes S_{(5,2^2,1)})+2\cdot(S_{(5,2,1^2)}\boxtimes S_{(5,2^2,1)})+(S_{(5,2^2)}\boxtimes S_{(5,2^2,1)})+(S_{(5,3,1)}\boxtimes S_{(5,2^2,1)})+(S_{(6,1^3)}\boxtimes S_{(5,2^2,1)})+(S_{(6,2,1)}\boxtimes S_{(5,2^2,1)})+(S_{(4,2,1^3)}\boxtimes S_{(5,3,1^2)})+(S_{(4,2^2,1)}\boxtimes S_{(5,3,1^2)})+(S_{(4,3,1^2)}\boxtimes S_{(5,3,1^2)})+(S_{(4,3,2)}\boxtimes S_{(5,3,1^2)})+(S_{(4^2,1)}\boxtimes S_{(5,3,1^2)})+(S_{(5,2,1^2)}\boxtimes S_{(5,3,1^2)})+(S_{(5,2^2)}\boxtimes S_{(5,3,1^2)})+2\cdot(S_{(5,3,1)}\boxtimes S_{(5,3,1^2)})+(S_{(5,4)}\boxtimes S_{(5,3,1^2)})+(S_{(6,2,1)}\boxtimes S_{(5,3,1^2)})+(S_{(6,3)}\boxtimes S_{(5,3,1^2)})+(S_{(4,2^2,1)}\boxtimes S_{(5,3,2)})+(S_{(4,3,1^2)}\boxtimes S_{(5,3,2)})+(S_{(4,3,2)}\boxtimes S_{(5,3,2)})+(S_{(4^2,1)}\boxtimes S_{(5,3,2)})+(S_{(5,2,1^2)}\boxtimes S_{(5,3,2)})+(S_{(5,2^2)}\boxtimes S_{(5,3,2)})+(S_{(5,3,1)}\boxtimes S_{(5,3,2)})+(S_{(6,2,1)}\boxtimes S_{(5,3,2)})+(S_{(4,3,1^2)}\boxtimes S_{(5,4,1)})+(S_{(4,3,2)}\boxtimes S_{(5,4,1)})+(S_{(4^2,1)}\boxtimes S_{(5,4,1)})+(S_{(5,3,1)}\boxtimes S_{(5,4,1)})+(S_{(5,4)}\boxtimes S_{(5,4,1)})+(S_{(6,3)}\boxtimes S_{(5,4,1)})+(S_{(4^2,1)}\boxtimes S_{(5^2)})+(S_{(5,2,1^2)}\boxtimes S_{(6,1^4)})+(S_{(6,1^3)}\boxtimes S_{(6,1^4)})+(S_{(6,2,1)}\boxtimes S_{(6,1^4)})+(S_{(7,1^2)}\boxtimes S_{(6,1^4)})+(S_{(5,1^4)}\boxtimes S_{(6,2,1^2)})+(S_{(5,2,1^2)}\boxtimes S_{(6,2,1^2)})+(S_{(5,2^2)}\boxtimes S_{(6,2,1^2)})+(S_{(5,3,1)}\boxtimes S_{(6,2,1^2)})+(S_{(6,1^3)}\boxtimes S_{(6,2,1^2)})+2\cdot(S_{(6,2,1)}\boxtimes S_{(6,2,1^2)})+(S_{(6,3)}\boxtimes S_{(6,2,1^2)})+(S_{(7,1^2)}\boxtimes S_{(6,2,1^2)})+(S_{(7,2)}\boxtimes S_{(6,2,1^2)})+(S_{(5,2,1^2)}\boxtimes S_{(6,2^2)})+(S_{(5,3,1)}\boxtimes S_{(6,2^2)})+(S_{(6,1^3)}\boxtimes S_{(6,2^2)})+(S_{(6,2,1)}\boxtimes S_{(6,2^2)})+(S_{(7,1^2)}\boxtimes S_{(6,2^2)})+(S_{(5,2,1^2)}\boxtimes S_{(6,3,1)})+(S_{(5,2^2)}\boxtimes S_{(6,3,1)})+(S_{(5,3,1)}\boxtimes S_{(6,3,1)})+(S_{(5,4)}\boxtimes S_{(6,3,1)})+(S_{(6,2,1)}\boxtimes S_{(6,3,1)})+(S_{(6,3)}\boxtimes S_{(6,3,1)})+(S_{(7,2)}\boxtimes S_{(6,3,1)})+(S_{(5,3,1)}\boxtimes S_{(6,4)})+(S_{(6,2,1)}\boxtimes S_{(7,1^3)})+(S_{(7,1^2)}\boxtimes S_{(7,1^3)})+(S_{(7,2)}\boxtimes S_{(7,1^3)})+(S_{(8,1)}\boxtimes S_{(7,1^3)})+(S_{(6,1^3)}\boxtimes S_{(7,2,1)})+(S_{(6,2,1)}\boxtimes S_{(7,2,1)})+(S_{(6,3)}\boxtimes S_{(7,2,1)})+(S_{(7,1^2)}\boxtimes S_{(7,2,1)})+(S_{(7,2)}\boxtimes S_{(7,2,1)})+(S_{(8,1)}\boxtimes S_{(7,2,1)})+(S_{(6,2,1)}\boxtimes S_{(7,3)})+(S_{(7,2)}\boxtimes S_{(8,1^2)})+(S_{(8,1)}\boxtimes S_{(8,1^2)})+(S_{(9)}\boxtimes S_{(8,1^2)})+(S_{(7,1^2)}\boxtimes S_{(8,2)})$	12700801
$(10,10)$	$(S_{(1^{10})}\boxtimes S_{(1^{10})})+(S_{(2,1^8)}\boxtimes S_{(2,1^8)})+(S_{(2^2,1^6)}\boxtimes S_{(2^2,1^6)})+(S_{(2^3,1^4)}\boxtimes S_{(2^3,1^4)})+(S_{(2^4,1^2)}\boxtimes S_{(2^4,1^2)})+(S_{(2^5)}\boxtimes S_{(2^5)})+(S_{(3,1^7)}\boxtimes S_{(3,1^7)})+(S_{(3,2,1^5)}\boxtimes S_{(3,2,1^5)})+(S_{(3,2^2,1^3)}\boxtimes S_{(3,2^2,1^3)})+(S_{(3,2^3,1)}\boxtimes S_{(3,2^3,1)})+(S_{(3^2,1^4)}\boxtimes S_{(3^2,1^4)})+(S_{(3^2,2,1^2)}\boxtimes S_{(3^2,2,1^2)})+(S_{(3^2,2^2)}\boxtimes S_{(3^2,2^2)})+(S_{(3^3,1)}\boxtimes S_{(3^3,1)})+(S_{(4,1^6)}\boxtimes S_{(4,1^6)})+(S_{(4,2,1^4)}\boxtimes S_{(4,2,1^4)})+(S_{(4,2^2,1^2)}\boxtimes S_{(4,2^2,1^2)})+(S_{(4,2^3)}\boxtimes S_{(4,2^3)})+(S_{(4,3,1^3)}\boxtimes S_{(4,3,1^3)})+(S_{(4,3,2,1)}\boxtimes S_{(4,3,2,1)})+(S_{(4,3^2)}\boxtimes S_{(4,3^2)})+(S_{(4^2,1^2)}\boxtimes S_{(4^2,1^2)})+(S_{(4^2,2)}\boxtimes S_{(4^2,2)})+(S_{(5,1^5)}\boxtimes S_{(5,1^5)})+(S_{(5,2,1^3)}\boxtimes S_{(5,2,1^3)})+(S_{(5,2^2,1)}\boxtimes S_{(5,2^2,1)})+(S_{(5,3,1^2)}\boxtimes S_{(5,3,1^2)})+(S_{(5,3,2)}\boxtimes S_{(5,3,2)})+(S_{(5,4,1)}\boxtimes S_{(5,4,1)})+(S_{(5^2)}\boxtimes S_{(5^2)})+(S_{(6,1^4)}\boxtimes S_{(6,1^4)})+(S_{(6,2,1^2)}\boxtimes S_{(6,2,1^2)})+(S_{(6,2^2)}\boxtimes S_{(6,2^2)})+(S_{(6,3,1)}\boxtimes S_{(6,3,1)})+(S_{(6,4)}\boxtimes S_{(6,4)})+(S_{(7,1^3)}\boxtimes S_{(7,1^3)})+(S_{(7,2,1)}\boxtimes S_{(7,2,1)})+(S_{(7,3)}\boxtimes S_{(7,3)})+(S_{(8,1^2)}\boxtimes S_{(8,1^2)})+(S_{(8,2)}\boxtimes S_{(8,2)})+(S_{(9,1)}\boxtimes S_{(9,1)})+(S_{(10)}\boxtimes S_{(10)})$	3628800

Table 1: Decomposition into irreducibles and rank of $(\omega\beta\mathbb{Q}\mathfrak{S}_m)^{[n]}$

2 Euler charateristics

The table below shows the Euler characteristics $\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n},\mathfrak{a}^{\otimes m}))$ for all $n \leq m \leq 10$, performed as described in [Hai23, Theorem 4.11]. The leftmost column is the value of the pair (n,m), the middle column is the $(\mathbb{Q}\mathfrak{S}_n, \mathbb{Q}\mathfrak{S}_m)$-bimodule corresponding to the equivariant Euler characteristic of $\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n},\mathfrak{a}^{\otimes m})$, and the rightmost column is the integral Euler characteristic of $\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n},\mathfrak{a}^{\otimes m})$.

(n,m)	$\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n},\mathfrak{a}^{\otimes m}))$	dim
$(0,0)$	$(S_{(0)} \boxtimes S_{(0)})$	1
$(0,1)$	0	0
$(1,1)$	$(S_{(1)} \boxtimes S_{(1)})$	1
$(0,2)$	0	0

$(1,2)$	0	0
$(2,2)$	$(S_{(1^2)} \boxtimes S_{(1^2)}) + (S_{(2)} \boxtimes S_{(2)})$	2
$(0,3)$	0	0
$(1,3)$	0	0
$(2,3)$	$(-1) \cdot (S_{(2)} \boxtimes S_{(1^3)})$	-1
$(3,3)$	$(S_{(1^3)} \boxtimes S_{(1^3)}) + (S_{(2,1)} \boxtimes S_{(2,1)}) + (S_{(3)} \boxtimes S_{(3)})$	6
$(0,4)$	0	0
$(1,4)$	0	0
$(2,4)$	0	0
$(3,4)$	$(-1) \cdot (S_{(1^3)} \boxtimes S_{(2^2)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(1^4)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2,1^2)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2,1^2)})$	-13
$(4,4)$	$(S_{(1^4)} \boxtimes S_{(1^4)}) + (S_{(2,1^2)} \boxtimes S_{(2,1^2)}) + (S_{(2^2)} \boxtimes S_{(2^2)}) + (S_{(3,1)} \boxtimes S_{(3,1)}) + (S_{(4)} \boxtimes S_{(4)})$	24
$(0,5)$	0	0
$(1,5)$	0	0
$(2,5)$	0	0
$(3,5)$	$(S_{(1^3)} \boxtimes S_{(2,1^3)}) + (S_{(2,1)} \boxtimes S_{(1^5)}) + (S_{(2,1)} \boxtimes S_{(2,1^3)}) + (S_{(2,1)} \boxtimes S_{(2^2,1)}) + (S_{(3)} \boxtimes S_{(2,1^3)})$	28
$(4,5)$	$(-1) \cdot (S_{(1^4)} \boxtimes S_{(2^2,1)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(1^5)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(2,1^3)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(3,2)}) + (-1) \cdot (S_{(2^2)} \boxtimes S_{(2,1^3)}) + (-1) \cdot (S_{(2^2)} \boxtimes S_{(3,1^2)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(2,1^3)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(2^2,1)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(3,1^2)}) + (-1) \cdot (S_{(4)} \boxtimes S_{(3,1^2)})$	-121
$(5,5)$	$(S_{(1^5)} \boxtimes S_{(1^5)}) + (S_{(2,1^3)} \boxtimes S_{(2,1^3)}) + (S_{(2^2,1)} \boxtimes S_{(2^2,1)}) + (S_{(3,1^2)} \boxtimes S_{(3,1^2)}) + (S_{(3,2)} \boxtimes S_{(3,2)}) + (S_{(4,1)} \boxtimes S_{(4,1)}) + (S_{(5)} \boxtimes S_{(5)})$	120
$(0,6)$	0	0
$(1,6)$	0	0
$(2,6)$	0	0
$(3,6)$	$(-1) \cdot (S_{(1^3)} \boxtimes S_{(1^6)}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(1^6)}) + (-2) \cdot (S_{(2,1)} \boxtimes S_{(2,1^4)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^3)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(1^6)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2,1^4)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2^3)})$	-71
$(4,6)$	$(S_{(1^4)} \boxtimes S_{(2,1^4)}) + (S_{(1^4)} \boxtimes S_{(2^2,1^2)}) + (S_{(1^4)} \boxtimes S_{(3^2)}) + (S_{(2,1^2)} \boxtimes S_{(1^6)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(2,1^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^2)}) + (S_{(2,1^2)} \boxtimes S_{(2^3)}) + (S_{(2,1^2)} \boxtimes S_{(3,1^3)}) + (S_{(2,1^2)} \boxtimes S_{(3,2,1)}) + (S_{(2^2)} \boxtimes S_{(1^6)}) + (S_{(2^2)} \boxtimes S_{(2,1^4)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(2^2,1^2)}) + (S_{(2^2)} \boxtimes S_{(3,2,1)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(2,1^4)}) + (S_{(3,1)} \boxtimes S_{(2^2,1^2)}) + (S_{(3,1)} \boxtimes S_{(2^3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3,1^3)}) + (S_{(3,1)} \boxtimes S_{(3,2,1)}) + (S_{(4)} \boxtimes S_{(2^2,1^2)}) + (S_{(4)} \boxtimes S_{(3,1^3)})$	478
$(5,6)$	$(-1) \cdot (S_{(1^5)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(1^6)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(2,1^4)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(2^3)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(3,2,1)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(2,1^4)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(3,1^3)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(3,2,1)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(3^2)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(2,1^4)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(2^3)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(3,1^3)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(3,2,1)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(4,2)}) + (-1) \cdot (S_{(3,2)} \boxtimes S_{(2^2,1^2)}) + (-1) \cdot (S_{(3,2)} \boxtimes S_{(3,1^3)}) + (-1) \cdot (S_{(3,2)} \boxtimes S_{(3,2,1)}) + (-1) \cdot (S_{(3,2)} \boxtimes S_{(4,1^2)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(3,1^3)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(3,2,1)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(4,1^2)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(4,1^2)})$	-1081
$(6,6)$	$(S_{(1^6)} \boxtimes S_{(1^6)}) + (S_{(2,1^4)} \boxtimes S_{(2,1^4)}) + (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^2)}) + (S_{(2^3)} \boxtimes S_{(2^3)}) + (S_{(3,1^3)} \boxtimes S_{(3,1^3)}) + (S_{(3,2,1)} \boxtimes S_{(3,2,1)}) + (S_{(3^2)} \boxtimes S_{(3^2)}) + (S_{(4,1^2)} \boxtimes S_{(4,1^2)}) + (S_{(4,2)} \boxtimes S_{(4,2)}) + (S_{(5,1)} \boxtimes S_{(5,1)}) + (S_{(6)} \boxtimes S_{(6)})$	720
$(0,7)$	0	0
$(1,7)$	0	0

$(2,7)$	0	0
$(3,7)$	$(S_{(1^3)} \boxtimes S_{(2,1^5)}) + (S_{(1^3)} \boxtimes S_{(2^2,1^3)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(1^7)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(2,1^5)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(2,1)} \boxtimes S_{(2^3,1)}) + (S_{(3)} \boxtimes S_{(1^7)}) + (S_{(3)} \boxtimes S_{(2,1^5)}) + (S_{(3)} \boxtimes S_{(2^2,1^3)})$	153
$(4,7)$	$(-1) \cdot (S_{(1^4)} \boxtimes S_{(1^7)}) + (-1) \cdot (S_{(1^4)} \boxtimes S_{(2,1^5)}) + (-1) \cdot (S_{(1^4)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(1^4)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(1^4)} \boxtimes S_{(3,2,1^2)}) + (-2) \cdot (S_{(2,1^2)} \boxtimes S_{(1^7)}) + (-3) \cdot (S_{(2,1^2)} \boxtimes S_{(2,1^5)}) + (-4) \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^3)}) + (-2) \cdot (S_{(2,1^2)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(3,1^4)}) + (-2) \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,1)}) + (-2) \cdot (S_{(2^2)} \boxtimes S_{(2,1^5)}) + (-2) \cdot (S_{(2^2)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(2^2)} \boxtimes S_{(2^3,1)}) + (-2) \cdot (S_{(2^2)} \boxtimes S_{(3,1^4)}) + (-1) \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(2^2)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(1^7)}) + (-3) \cdot (S_{(3,1)} \boxtimes S_{(2,1^5)}) + (-3) \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^3)}) + (-2) \cdot (S_{(3,1)} \boxtimes S_{(2^3,1)}) + (-2) \cdot (S_{(3,1)} \boxtimes S_{(3,1^4)}) + (-2) \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(4)} \boxtimes S_{(2,1^5)}) + (-1) \cdot (S_{(4)} \boxtimes S_{(2^3,1)}) + (-2) \cdot (S_{(4)} \boxtimes S_{(3,1^4)}) + (-1) \cdot (S_{(4)} \boxtimes S_{(3,2^2)})$	-1681
$(5,7)$	$(S_{(1^5)} \boxtimes S_{(2,1^5)}) + (S_{(1^5)} \boxtimes S_{(2^2,1^3)}) + (S_{(1^5)} \boxtimes S_{(2^3,1)}) + (S_{(1^5)} \boxtimes S_{(3^2,1)}) + (S_{(2,1^3)} \boxtimes S_{(1^7)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(2,1^5)}) + 3 \cdot (S_{(2,1^3)} \boxtimes S_{(2^2,1^3)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(2^3,1)}) + (S_{(2,1^3)} \boxtimes S_{(3,1^4)}) + 2 \cdot (S_{(2,1^3)} \boxtimes S_{(3,2,1^2)}) + (S_{(2,1^3)} \boxtimes S_{(3,2^2)}) + (S_{(2,1^3)} \boxtimes S_{(3^2,1)}) + (S_{(2,1^3)} \boxtimes S_{(4,3)}) + (S_{(2^2,1)} \boxtimes S_{(1^7)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(2,1^5)}) + 3 \cdot (S_{(2^2,1)} \boxtimes S_{(2^2,1^3)}) + 2 \cdot (S_{(2^2,1)} \boxtimes S_{(2^3,1)}) + (S_{(2^2,1)} \boxtimes S_{(3,1^4)}) + 3 \cdot (S_{(2^2,1)} \boxtimes S_{(3,2,1^2)}) + (S_{(2^2,1)} \boxtimes S_{(3,2^2)}) + (S_{(2^2,1)} \boxtimes S_{(3^2,1)}) + (S_{(2^2,1)} \boxtimes S_{(4,2,1)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(2,1^5)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(2^2,1^3)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(2^3,1)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(3,1^4)}) + 3 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2,1^2)}) + 2 \cdot (S_{(3,1^2)} \boxtimes S_{(3,2^2)}) + (S_{(3,1^2)} \boxtimes S_{(3^2,1)}) + (S_{(3,1^2)} \boxtimes S_{(4,1^3)}) + (S_{(3,1^2)} \boxtimes S_{(4,2,1)}) + (S_{(3,2)} \boxtimes S_{(2,1^5)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(2^2,1^3)}) + (S_{(3,2)} \boxtimes S_{(2^3,1)}) + 2 \cdot (S_{(3,2)} \boxtimes S_{(3,1^4)}) + 3 \cdot (S_{(3,2)} \boxtimes S_{(3,2,1^2)}) + (S_{(3,2)} \boxtimes S_{(3,2^2)}) + (S_{(3,2)} \boxtimes S_{(3^2,1)}) + (S_{(3,2)} \boxtimes S_{(4,1^3)}) + (S_{(3,2)} \boxtimes S_{(4,2,1)}) + (S_{(4,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(4,1)} \boxtimes S_{(2^3,1)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(3,1^4)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(3,2,1^2)}) + (S_{(4,1)} \boxtimes S_{(3,2^2)}) + 2 \cdot (S_{(4,1)} \boxtimes S_{(4,1^3)}) + (S_{(4,1)} \boxtimes S_{(4,2,1)}) + (S_{(5)} \boxtimes S_{(3,2,1^2)}) + (S_{(5)} \boxtimes S_{(4,1^3)})$	6718
$(6,7)$	$(-1) \cdot (S_{(1^6)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(2,1^4)} \boxtimes S_{(1^7)}) + (-1) \cdot (S_{(2,1^4)} \boxtimes S_{(2,1^5)}) + (-1) \cdot (S_{(2,1^4)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(2,1^4)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(2,1^5)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,1^4)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1)}) + (-1) \cdot (S_{(2^3)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(2^3)} \boxtimes S_{(3^2,1)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(2,1^5)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(3,1^4)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(3,1^3)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^3)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^4)}) + (-2) \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(4,1^3)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(3,2,1)} \boxtimes S_{(4,3)}) + (-1) \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(3^2)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(3,1^4)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(4,1^3)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(4,1^2)} \boxtimes S_{(5,2)}) + (-1) \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^2)}) + (-1) \cdot (S_{(4,2)} \boxtimes S_{(3^2,1)}) + (-1) \cdot (S_{(4,2)} \boxtimes S_{(4,1^3)}) + (-1) \cdot (S_{(4,2)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(4,2)} \boxtimes S_{(5,1^2)}) + (-1) \cdot (S_{(5,1)} \boxtimes S_{(4,1^3)}) + (-1) \cdot (S_{(5,1)} \boxtimes S_{(4,2,1)}) + (-1) \cdot (S_{(5,1)} \boxtimes S_{(5,1^2)}) + (-1) \cdot (S_{(6)} \boxtimes S_{(5,1^2)})$	-10081
$(7,7)$	$(S_{(1^7)} \boxtimes S_{(1^7)}) + (S_{(2,1^5)} \boxtimes S_{(2,1^5)}) + (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^3)}) + (S_{(2^3,1)} \boxtimes S_{(2^3,1)}) + (S_{(3,1^4)} \boxtimes S_{(3,1^4)}) + (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^2)}) + (S_{(3,2^2)} \boxtimes S_{(3,2^2)}) + (S_{(3^2,1)} \boxtimes S_{(3^2,1)}) + (S_{(4,1^3)} \boxtimes S_{(4,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(4,2,1)}) + (S_{(4,3)} \boxtimes S_{(4,3)}) + (S_{(5,1^2)} \boxtimes S_{(5,1^2)}) + (S_{(5,2)} \boxtimes S_{(5,2)}) + (S_{(6,1)} \boxtimes S_{(6,1)}) + (S_{(7)} \boxtimes S_{(7)})$	5040
$(0,8)$	0	0
$(1,8)$	0	0
$(2,8)$	0	0

$(3,8)$	$(-1) \cdot (S_{(1^3)} \boxtimes S_{(1^8)}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2,1^6)}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2^4)}) + (-2) \cdot (S_{(2,1)} \boxtimes S_{(1^8)}) + (-3) \cdot (S_{(2,1)} \boxtimes S_{(2,1^6)}) + (-2) \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^4)}) + (-2) \cdot (S_{(2,1)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(1^8)}) + (-2) \cdot (S_{(3)} \boxtimes S_{(2,1^6)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2^3,1^2)})$	-323
$(4,8)$	$(S_{(1^4)} \boxtimes S_{(1^8)}) + (S_{(1^4)} \boxtimes S_{(2,1^6)}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(1^4)} \boxtimes S_{(2^3,1^2)}) + (S_{(1^4)} \boxtimes S_{(2^4)}) + (S_{(1^4)} \boxtimes S_{(3,2,1^3)}) + (S_{(1^4)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(1^8)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(2,1^6)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^4)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(2,1^2)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3,1^5)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^2,1)}) + (S_{(2,1^2)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(1^8)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(2,1^6)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(2^2,1^4)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(2^3,1^2)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(2^4)}) + (S_{(2^2)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^3)}) + (S_{(2^2)} \boxtimes S_{(3,2^2,1)}) + (S_{(2^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3,1)} \boxtimes S_{(1^8)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(2,1^6)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^4)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,1)} \boxtimes S_{(2^4)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(3,1^5)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(3,1)} \boxtimes S_{(3^2,2)}) + (S_{(4)} \boxtimes S_{(2,1^6)}) + 2 \cdot (S_{(4)} \boxtimes S_{(2^2,1^4)}) + (S_{(4)} \boxtimes S_{(2^3,1^2)}) + (S_{(4)} \boxtimes S_{(3,1^5)}) + (S_{(4)} \boxtimes S_{(3,2,1^3)}) + (S_{(4)} \boxtimes S_{(3,2^2,1)})$	5542
$(5,8)$	$(-1) \cdot (S_{(1^5)} \boxtimes S_{(1^8)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(2,1^6)}) + (-2) \cdot (S_{(1^5)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(2^4)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(1^5)} \boxtimes S_{(4^2)}) + (-2) \cdot (S_{(2,1^3)} \boxtimes S_{(1^8)}) + (-4) \cdot (S_{(2,1^3)} \boxtimes S_{(2,1^6)}) + (-5) \cdot (S_{(2,1^3)} \boxtimes S_{(2^2,1^4)}) + (-5) \cdot (S_{(2,1^3)} \boxtimes S_{(2^3,1^2)}) + (-2) \cdot (S_{(2,1^3)} \boxtimes S_{(2^4)}) + (-2) \cdot (S_{(2,1^3)} \boxtimes S_{(3,1^5)}) + (-4) \cdot (S_{(2,1^3)} \boxtimes S_{(3,2,1^3)}) + (-3) \cdot (S_{(2,1^3)} \boxtimes S_{(3,2^2,1)}) + (-3) \cdot (S_{(2,1^3)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(2,1^3)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(1^8)}) + (-3) \cdot (S_{(2^2,1)} \boxtimes S_{(2,1^6)}) + (-6) \cdot (S_{(2^2,1)} \boxtimes S_{(2^2,1^4)}) + (-4) \cdot (S_{(2^2,1)} \boxtimes S_{(2^3,1^2)}) + (-2) \cdot (S_{(2^2,1)} \boxtimes S_{(2^4)}) + (-3) \cdot (S_{(2^2,1)} \boxtimes S_{(3,1^5)}) + (-6) \cdot (S_{(2^2,1)} \boxtimes S_{(3,2,1^3)}) + (-4) \cdot (S_{(2^2,1)} \boxtimes S_{(3,2^2,1)}) + (-3) \cdot (S_{(2^2,1)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(4,1^4)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(2^2,1)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(1^8)}) + (-4) \cdot (S_{(3,1^2)} \boxtimes S_{(2,1^6)}) + (-5) \cdot (S_{(3,1^2)} \boxtimes S_{(2^2,1^4)}) + (-6) \cdot (S_{(3,1^2)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(2^4)}) + (-4) \cdot (S_{(3,1^2)} \boxtimes S_{(3,1^5)}) + (-7) \cdot (S_{(3,1^2)} \boxtimes S_{(3,2,1^3)}) + (-5) \cdot (S_{(3,1^2)} \boxtimes S_{(3,2^2,1)}) + (-2) \cdot (S_{(3,1^2)} \boxtimes S_{(3^2,1^2)}) + (-2) \cdot (S_{(3,1^2)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(4,1^4)}) + (-3) \cdot (S_{(3,1^2)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(3,1^2)} \boxtimes S_{(4,3,1)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(2,1^6)}) + (-4) \cdot (S_{(3,2)} \boxtimes S_{(2^2,1^4)}) + (-3) \cdot (S_{(3,2)} \boxtimes S_{(2^3,1^2)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(2^4)}) + (-4) \cdot (S_{(3,2)} \boxtimes S_{(3,1^5)}) + (-6) \cdot (S_{(3,2)} \boxtimes S_{(3,2,1^3)}) + (-4) \cdot (S_{(3,2)} \boxtimes S_{(3,2^2,1)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(3,2)} \boxtimes S_{(3^2,2)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(4,1^4)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(4,2,1^2)}) + (-2) \cdot (S_{(3,2)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(2,1^6)}) + (-2) \cdot (S_{(4,1)} \boxtimes S_{(2^2,1^4)}) + (-2) \cdot (S_{(4,1)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(2^4)}) + (-4) \cdot (S_{(4,1)} \boxtimes S_{(3,1^5)}) + (-4) \cdot (S_{(4,1)} \boxtimes S_{(3,2,1^3)}) + (-4) \cdot (S_{(4,1)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(3^2,2)}) + (-3) \cdot (S_{(4,1)} \boxtimes S_{(4,1^4)}) + (-2) \cdot (S_{(4,1)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(4,1)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(2^4)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(3,1^5)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(3,2^2,1)}) + (-2) \cdot (S_{(5)} \boxtimes S_{(4,1^4)}) + (-1) \cdot (S_{(5)} \boxtimes S_{(4,2^2)})$	-35281

$(6,8)$	$(S_{(1^6)} \boxtimes S_{(2,1^6)}) + (S_{(1^6)} \boxtimes S_{(2^2,1^4)}) + (S_{(1^6)} \boxtimes S_{(2^3,1^2)}) + (S_{(1^6)} \boxtimes S_{(2^4)}) + (S_{(1^6)} \boxtimes S_{(3^2,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(1^8)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(2,1^6)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(2^2,1^4)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(2^3,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(2^4)}) + (S_{(2,1^4)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^2,1)}) + (S_{(2,1^4)} \boxtimes S_{(3^2,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(3^2,2)}) + (S_{(2,1^4)} \boxtimes S_{(4,3,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(1^8)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2,1^6)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^4)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1^2)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^4)}) + (S_{(2^2,1^2)} \boxtimes S_{(3,1^5)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2,1)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(3^2,2)}) + (S_{(2^2,1^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(4,2^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(4,3,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(4^2)}) + (S_{(2^3)} \boxtimes S_{(2,1^6)}) + (S_{(2^3)} \boxtimes S_{(2^2,1^4)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(2^3,1^2)}) + (S_{(2^3)} \boxtimes S_{(3,1^5)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3,2^2,1)}) + (S_{(2^3)} \boxtimes S_{(3^2,1^2)}) + (S_{(2^3)} \boxtimes S_{(3^2,2)}) + (S_{(2^3)} \boxtimes S_{(4,2,1^2)}) + (S_{(2^3)} \boxtimes S_{(4,3,1)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(2,1^6)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(2^2,1^4)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,1^3)} \boxtimes S_{(2^4)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(3,1^5)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^3)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2,1)}) + (S_{(3,1^3)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2)}) + (S_{(3,1^3)} \boxtimes S_{(4,1^4)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2,1^2)}) + (S_{(3,1^3)} \boxtimes S_{(4,2^2)}) + (S_{(3,1^3)} \boxtimes S_{(4,3,1)}) + (S_{(3,1^3)} \boxtimes S_{(5,3)}) + (S_{(3,2,1)} \boxtimes S_{(2,1^6)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^4)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1^2)}) + (S_{(3,2,1)} \boxtimes S_{(2^4)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^5)}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^3)}) + 5 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2,1)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(4,1^4)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,1)}) + (S_{(3,2,1)} \boxtimes S_{(5,2,1)}) + (S_{(3^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(3^2)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^3)}) + (S_{(3^2)} \boxtimes S_{(3,2^2,1)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3^2)} \boxtimes S_{(4,1^4)}) + (S_{(3^2)} \boxtimes S_{(4,2,1^2)}) + (S_{(3^2)} \boxtimes S_{(4,2^2)}) + (S_{(3^2)} \boxtimes S_{(4,3,1)}) + (S_{(3^2)} \boxtimes S_{(5,1^3)}) + (S_{(4,1^2)} \boxtimes S_{(2^2,1^4)}) + (S_{(4,1^2)} \boxtimes S_{(2^3,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(2^4)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(3,1^5)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^3)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2,1)}) + (S_{(4,1^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(3^2,2)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(4,1^4)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2,1^2)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^2)}) + (S_{(4,1^2)} \boxtimes S_{(4,3,1)}) + (S_{(4,1^2)} \boxtimes S_{(5,1^3)}) + (S_{(4,1^2)} \boxtimes S_{(5,2,1)}) + (S_{(4,2)} \boxtimes S_{(2^3,1^2)}) + (S_{(4,2)} \boxtimes S_{(3,1^5)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^3)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(3,2^2,1)}) + (S_{(4,2)} \boxtimes S_{(3^2,1^2)}) + (S_{(4,2)} \boxtimes S_{(3^2,2)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(4,1^4)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(4,2,1^2)}) + (S_{(4,2)} \boxtimes S_{(4,2^2)}) + (S_{(4,2)} \boxtimes S_{(4,3,1)}) + (S_{(4,2)} \boxtimes S_{(5,1^3)}) + (S_{(4,2)} \boxtimes S_{(5,2,1)}) + (S_{(5,1)} \boxtimes S_{(3,2,1^3)}) + (S_{(5,1)} \boxtimes S_{(3,2^2,1)}) + (S_{(5,1)} \boxtimes S_{(3^2,1^2)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(4,1^4)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(4,2,1^2)}) + (S_{(5,1)} \boxtimes S_{(4,2^2)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(5,1^3)}) + (S_{(5,1)} \boxtimes S_{(5,2,1)}) + (S_{(6)} \boxtimes S_{(4,2,1^2)}) + (S_{(6)} \boxtimes S_{(5,1^3)})$	90718

$(7,8)$	$(-1) \cdot (S_{(1^7)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(1^8)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(2,1^6)}) + (-1) \cdot$ $(S_{(2,1^5)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot$ $(S_{(2^2,1^3)} \boxtimes S_{(2,1^6)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot$ $(S_{(2^2,1^3)} \boxtimes S_{(2^4)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,1^5)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot$ $(S_{(2^2,1^3)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot$ $(S_{(2^3,1)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot$ $(S_{(2^3,1)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(2,1^6)}) + (-1) \cdot$ $(S_{(3,1^4)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(3,1^5)}) + (-1) \cdot$ $(S_{(3,1^4)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot$ $(S_{(3,2,1^2)} \boxtimes S_{(2^2,1^4)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^4)}) + (-1) \cdot$ $(S_{(3,2,1^2)} \boxtimes S_{(3,1^5)}) + (-2) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^3)}) + (-2) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^2,1)}) +$ $(-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,1^4)}) +$ $(-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3,1)}) +$ $(-1) \cdot (S_{(3,2^2)} \boxtimes S_{(2^3,1^2)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(3,2^2,1)}) +$ $(-1) \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(4,2,1^2)}) +$ $(-1) \cdot (S_{(3,2^2)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^2,1)}) +$ $(-1) \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,1^2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(4,2^2)}) +$ $(-1) \cdot (S_{(3^2,1)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(4^2)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(3,1^5)}) +$ $(-1) \cdot (S_{(4,1^3)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(4,1^4)}) +$ $(-1) \cdot (S_{(4,1^3)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(5,2,1)}) +$ $(-1) \cdot (S_{(4,2,1)} \boxtimes S_{(3,2,1^3)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^2,1)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,1^2)}) +$ $(-1) \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,2)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(4,1^4)}) + (-2) \cdot (S_{(4,2,1)} \boxtimes S_{(4,2,1^2)}) +$ $(-1) \cdot (S_{(4,2,1)} \boxtimes S_{(4,2^2)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(5,1^3)}) +$ $(-1) \cdot (S_{(4,2,1)} \boxtimes S_{(5,2,1)}) + (-1) \cdot (S_{(4,2,1)} \boxtimes S_{(5,3)}) + (-1) \cdot (S_{(4,3)} \boxtimes S_{(3^2,1^2)}) +$ $(-1) \cdot (S_{(4,3)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(4,3)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(4,3)} \boxtimes S_{(5,2,1)}) +$ $(-1) \cdot (S_{(5,1^2)} \boxtimes S_{(4,1^4)}) + (-1) \cdot (S_{(5,1^2)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(5,1^2)} \boxtimes S_{(4,2^2)}) +$ $(-1) \cdot (S_{(5,1^2)} \boxtimes S_{(5,1^3)}) + (-1) \cdot (S_{(5,1^2)} \boxtimes S_{(5,2,1)}) + (-1) \cdot (S_{(5,1^2)} \boxtimes S_{(6,2)}) +$ $(-1) \cdot (S_{(5,2)} \boxtimes S_{(4,2,1^2)}) + (-1) \cdot (S_{(5,2)} \boxtimes S_{(4,3,1)}) + (-1) \cdot (S_{(5,2)} \boxtimes S_{(5,1^3)}) +$ $(-1) \cdot (S_{(5,2)} \boxtimes S_{(5,2,1)}) + (-1) \cdot (S_{(5,2)} \boxtimes S_{(6,1^2)}) + (-1) \cdot (S_{(6,1)} \boxtimes S_{(5,1^3)}) +$ $(-1) \cdot (S_{(6,1)} \boxtimes S_{(5,2,1)}) + (-1) \cdot (S_{(6,1)} \boxtimes S_{(6,1^2)}) + (-1) \cdot (S_{(7)} \boxtimes S_{(6,1^2)})$	-100801
$(8,8)$	$(S_{(1^8)} \boxtimes S_{(1^8)}) + (S_{(2,1^6)} \boxtimes S_{(2,1^6)}) + (S_{(2^2,1^4)} \boxtimes S_{(2^2,1^4)}) + (S_{(2^3,1^2)} \boxtimes S_{(2^3,1^2)}) +$ $(S_{(2^4)} \boxtimes S_{(2^4)}) + (S_{(3,1^5)} \boxtimes S_{(3,1^5)}) + (S_{(3,2,1^3)} \boxtimes S_{(3,2,1^3)}) + (S_{(3,2^2,1)} \boxtimes S_{(3,2^2,1)}) +$ $(S_{(3^2,1^2)} \boxtimes S_{(3^2,1^2)}) + (S_{(3^2,2)} \boxtimes S_{(3^2,2)}) + (S_{(4,1^4)} \boxtimes S_{(4,1^4)}) + (S_{(4,2,1^2)} \boxtimes S_{(4,2,1^2)}) +$ $(S_{(4,2^2)} \boxtimes S_{(4,2^2)}) + (S_{(4,3,1)} \boxtimes S_{(4,3,1)}) + (S_{(4^2)} \boxtimes S_{(4^2)}) + (S_{(5,1^3)} \boxtimes S_{(5,1^3)}) +$ $(S_{(5,2,1)} \boxtimes S_{(5,2,1)}) + (S_{(5,3)} \boxtimes S_{(5,3)}) + (S_{(6,1^2)} \boxtimes S_{(6,1^2)}) + (S_{(6,2)} \boxtimes S_{(6,2)}) +$ $(S_{(7,1)} \boxtimes S_{(7,1)}) + (S_{(8)} \boxtimes S_{(8)})$	40320
$(0,9)$	0	0
$(1,9)$	0	0
$(2,9)$	0	0
$(3,9)$	$(S_{(1^3)} \boxtimes S_{(1^9)}) + (S_{(1^3)} \boxtimes S_{(2,1^7)}) + (S_{(1^3)} \boxtimes S_{(2^2,1^5)}) + (S_{(1^3)} \boxtimes S_{(2^3,1^3)}) + 3 \cdot (S_{(2,1)} \boxtimes$ $S_{(1^9)}) + 3 \cdot (S_{(2,1)} \boxtimes S_{(2,1^7)}) + 3 \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^5)}) + 2 \cdot (S_{(2,1)} \boxtimes S_{(2^3,1^3)}) + (S_{(2,1)} \boxtimes$ $S_{(2^4,1)}) + 2 \cdot (S_{(3)} \boxtimes S_{(1^9)}) + (S_{(3)} \boxtimes S_{(2,1^7)}) + (S_{(3)} \boxtimes S_{(2^2,1^5)}) + (S_{(3)} \boxtimes S_{(2^3,1^3)})$	661

$(4,9)$	$(-1)\cdot(S_{(1^4)}\boxtimes S_{(1^9)})+(-2)\cdot(S_{(1^4)}\boxtimes S_{(2,1^7)})+(-3)\cdot(S_{(1^4)}\boxtimes S_{(2^2,1^5)})+(-2)\cdot(S_{(1^4)}\boxtimes S_{(2^3,1^3)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(2^4,1)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(3,1^6)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(3,2,1^4)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(3,2^2,1^2)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(3,2^3)})+(-1)\cdot(S_{(1^4)}\boxtimes S_{(3^2,1^3)})+(-4)\cdot(S_{(2,1^2)}\boxtimes S_{(1^9)})+(-6)\cdot(S_{(2,1^2)}\boxtimes S_{(2,1^7)})+(-8)\cdot(S_{(2,1^2)}\boxtimes S_{(2^2,1^5)})+(-6)\cdot(S_{(2,1^2)}\boxtimes S_{(2^3,1^3)})+(-4)\cdot(S_{(2,1^2)}\boxtimes S_{(2^4,1)})+(-2)\cdot(S_{(2,1^2)}\boxtimes S_{(3,1^6)})+(-5)\cdot(S_{(2,1^2)}\boxtimes S_{(3,2,1^4)})+(-2)\cdot(S_{(2,1^2)}\boxtimes S_{(3,2^2,1^2)})+(-2)\cdot(S_{(2,1^2)}\boxtimes S_{(3,2^3)})+(-2)\cdot(S_{(2,1^2)}\boxtimes S_{(3^2,1^3)})+(-1)\cdot(S_{(2,1^2)}\boxtimes S_{(3^2,2,1)})+(-1)\cdot(S_{(2^2)}\boxtimes S_{(1^9)})+(-4)\cdot(S_{(2^2)}\boxtimes S_{(2,1^7)})+(-4)\cdot(S_{(2^2)}\boxtimes S_{(2^2,1^5)})+(-4)\cdot(S_{(2^2)}\boxtimes S_{(2^3,1^3)})+(-2)\cdot(S_{(2^2)}\boxtimes S_{(2^4,1)})+(-3)\cdot(S_{(2^2)}\boxtimes S_{(3,1^6)})+(-3)\cdot(S_{(2^2)}\boxtimes S_{(3,2,1^4)})+(-3)\cdot(S_{(2^2)}\boxtimes S_{(3,2^2,1^2)})+(-1)\cdot(S_{(2^2)}\boxtimes S_{(3^2,2,1)})+(-2)\cdot(S_{(3,1)}\boxtimes S_{(1^9)})+(-6)\cdot(S_{(3,1)}\boxtimes S_{(2,1^7)})+(-7)\cdot(S_{(3,1)}\boxtimes S_{(2^2,1^5)})+(-6)\cdot(S_{(3,1)}\boxtimes S_{(2^3,1^3)})+(-3)\cdot(S_{(3,1)}\boxtimes S_{(2^4,1)})+(-4)\cdot(S_{(3,1)}\boxtimes S_{(3,1^6)})+(-4)\cdot(S_{(3,1)}\boxtimes S_{(3,2,1^4)})+(-4)\cdot(S_{(3,1)}\boxtimes S_{(3,2^2,1^2)})+(-2)\cdot(S_{(3,1)}\boxtimes S_{(3,2^3)})+(-2)\cdot(S_{(3,1)}\boxtimes S_{(3^2,1^3)})+(-1)\cdot(S_{(3,1)}\boxtimes S_{(3^2,2,1)})+(-1)\cdot(S_{(3,1)}\boxtimes S_{(4^2,1)})+(S_{(4)}\boxtimes S_{(1^9)})+(-2)\cdot(S_{(4)}\boxtimes S_{(2,1^7)})+(-1)\cdot(S_{(4)}\boxtimes S_{(2^2,1^5)})+(-2)\cdot(S_{(4)}\boxtimes S_{(2^3,1^3)})+(-1)\cdot(S_{(4)}\boxtimes S_{(2^4,1)})+(-3)\cdot(S_{(4)}\boxtimes S_{(3,1^6)})+(-1)\cdot(S_{(4)}\boxtimes S_{(3,2,1^4)})+(-2)\cdot(S_{(4)}\boxtimes S_{(3,2^2,1^2)})+(-1)\cdot(S_{(4)}\boxtimes S_{(3^3)})$	-18504
$(5,9)$	$(S_{(1^5)}\boxtimes S_{(1^9)})+2\cdot(S_{(1^5)}\boxtimes S_{(2,1^7)})+3\cdot(S_{(1^5)}\boxtimes S_{(2^2,1^5)})+3\cdot(S_{(1^5)}\boxtimes S_{(2^3,1^3)})+2\cdot(S_{(1^5)}\boxtimes S_{(2^4,1)})+2\cdot(S_{(1^5)}\boxtimes S_{(3,2,1^4)})+(S_{(1^5)}\boxtimes S_{(3,2^2,1^2)})+(S_{(1^5)}\boxtimes S_{(3,2^3)})+2\cdot(S_{(1^5)}\boxtimes S_{(3^2,1^3)})+(S_{(1^5)}\boxtimes S_{(3^2,2,1)})+(S_{(1^5)}\boxtimes S_{(4,3,1^2)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(1^9)})+6\cdot(S_{(2,1^3)}\boxtimes S_{(2,1^7)})+9\cdot(S_{(2,1^3)}\boxtimes S_{(2^2,1^5)})+9\cdot(S_{(2,1^3)}\boxtimes S_{(2^3,1^3)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(2^4,1)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(3,1^6)})+8\cdot(S_{(2,1^3)}\boxtimes S_{(3,2,1^4)})+7\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^2,1^2)})+3\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^3)})+5\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,1^3)})+4\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2,1)})+2\cdot(S_{(2,1^3)}\boxtimes S_{(4,2,1^3)})+(S_{(2,1^3)}\boxtimes S_{(4,2^2,1)})+2\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,1^2)})+(S_{(2,1^3)}\boxtimes S_{(4^2,1)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(1^9)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(2,1^7)})+10\cdot(S_{(2^2,1)}\boxtimes S_{(2^2,1^5)})+9\cdot(S_{(2^2,1)}\boxtimes S_{(2^3,1^3)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(2^4,1)})+5\cdot(S_{(2^2,1)}\boxtimes S_{(3,1^6)})+10\cdot(S_{(2^2,1)}\boxtimes S_{(3,2,1^4)})+9\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^2,1^2)})+4\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^3)})+6\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,1^3)})+4\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2,1)})+(S_{(2^2,1)}\boxtimes S_{(4,1^5)})+3\cdot(S_{(2^2,1)}\boxtimes S_{(4,2,1^3)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(4,2^2,1)})+2\cdot(S_{(2^2,1)}\boxtimes S_{(4,3,1^2)})+(S_{(2^2,1)}\boxtimes S_{(4,3,2)})+(S_{(3,1^2)}\boxtimes S_{(1^9)})+6\cdot(S_{(3,1^2)}\boxtimes S_{(2,1^7)})+9\cdot(S_{(3,1^2)}\boxtimes S_{(2^2,1^5)})+10\cdot(S_{(3,1^2)}\boxtimes S_{(2^3,1^3)})+6\cdot(S_{(3,1^2)}\boxtimes S_{(2^4,1)})+8\cdot(S_{(3,1^2)}\boxtimes S_{(3,1^6)})+12\cdot(S_{(3,1^2)}\boxtimes S_{(3,2,1^4)})+12\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^2,1^2)})+4\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^3)})+5\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,1^3)})+5\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,2,1)})+(S_{(3,1^2)}\boxtimes S_{(3^3)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(4,1^5)})+4\cdot(S_{(3,1^2)}\boxtimes S_{(4,2,1^3)})+3\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^2,1)})+2\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,1^2)})+(S_{(3,1^2)}\boxtimes S_{(4,3,2)})+(S_{(3,2)}\boxtimes S_{(1^9)})+4\cdot(S_{(3,2)}\boxtimes S_{(2,1^7)})+7\cdot(S_{(3,2)}\boxtimes S_{(2^2,1^5)})+7\cdot(S_{(3,2)}\boxtimes S_{(2^3,1^3)})+5\cdot(S_{(3,2)}\boxtimes S_{(2^4,1)})+6\cdot(S_{(3,2)}\boxtimes S_{(3,1^6)})+11\cdot(S_{(3,2)}\boxtimes S_{(3,2,1^4)})+9\cdot(S_{(3,2)}\boxtimes S_{(3,2^2,1^2)})+4\cdot(S_{(3,2)}\boxtimes S_{(3,2^3)})+4\cdot(S_{(3,2)}\boxtimes S_{(3^2,1^3)})+4\cdot(S_{(3,2)}\boxtimes S_{(3^2,2,1)})+(S_{(3,2)}\boxtimes S_{(3^3)})+3\cdot(S_{(3,2)}\boxtimes S_{(4,1^5)})+4\cdot(S_{(3,2)}\boxtimes S_{(4,2,1^3)})+3\cdot(S_{(3,2)}\boxtimes S_{(4,2^2,1)})+(S_{(3,2)}\boxtimes S_{(4,3,1^2)})+(S_{(3,2)}\boxtimes S_{(4,3,2)})+2\cdot(S_{(4,1)}\boxtimes S_{(2,1^7)})+4\cdot(S_{(4,1)}\boxtimes S_{(2^2,1^5)})+5\cdot(S_{(4,1)}\boxtimes S_{(2^3,1^3)})+3\cdot(S_{(4,1)}\boxtimes S_{(2^4,1)})+6\cdot(S_{(4,1)}\boxtimes S_{(3,1^6)})+8\cdot(S_{(4,1)}\boxtimes S_{(3,2,1^4)})+8\cdot(S_{(4,1)}\boxtimes S_{(3,2^2,1^2)})+3\cdot(S_{(4,1)}\boxtimes S_{(3,2^3)})+2\cdot(S_{(4,1)}\boxtimes S_{(3^2,1^3)})+3\cdot(S_{(4,1)}\boxtimes S_{(3^2,2,1)})+(S_{(4,1)}\boxtimes S_{(3^3)})+4\cdot(S_{(4,1)}\boxtimes S_{(4,1^5)})+4\cdot(S_{(4,1)}\boxtimes S_{(4,2,1^3)})+3\cdot(S_{(4,1)}\boxtimes S_{(4,2^2,1)})+(S_{(4,1)}\boxtimes S_{(4,3,2)})+(S_{(5)}\boxtimes S_{(2^2,1^5)})+(S_{(5)}\boxtimes S_{(2^3,1^3)})+(S_{(5)}\boxtimes S_{(3,1^6)})+2\cdot(S_{(5)}\boxtimes S_{(3,2,1^4)})+2\cdot(S_{(5)}\boxtimes S_{(3,2^2,1^2)})+(S_{(5)}\boxtimes S_{(3,2^3)})+(S_{(5)}\boxtimes S_{(3^2,2,1)})+2\cdot(S_{(5)}\boxtimes S_{(4,1^5)})+(S_{(5)}\boxtimes S_{(4,2,1^3)})+(S_{(5)}\boxtimes S_{(4,2^2,1)})$	168838

| $(6,9)$ | $(-1)\cdot(S_{(1^6)}\boxtimes S_{(1^9)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(2,1^7)})+(-2)\cdot(S_{(1^6)}\boxtimes S_{(2^2,1^5)})+(-2)\cdot$ $(S_{(1^6)}\boxtimes S_{(2^3,1^3)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(2^4,1)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(3,2,1^4)})+(-1)\cdot(S_{(1^6)}\boxtimes$ $S_{(3,2^2,1^2)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(3,2^3)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(3^2,1^3)})+(-1)\cdot(S_{(1^6)}\boxtimes$ $S_{(3^2,2,1)})+(-1)\cdot(S_{(1^6)}\boxtimes S_{(4^2,1)})+(-2)\cdot(S_{(2,1^4)}\boxtimes S_{(1^9)})+(-4)\cdot(S_{(2,1^4)}\boxtimes S_{(2,1^7)})+$ $(-6)\cdot(S_{(2,1^4)}\boxtimes S_{(2^2,1^5)})+(-6)\cdot(S_{(2,1^4)}\boxtimes S_{(2^3,1^3)})+(-5)\cdot(S_{(2,1^4)}\boxtimes S_{(2^4,1)})+$ $(-2)\cdot(S_{(2,1^4)}\boxtimes S_{(3,1^6)})+(-5)\cdot(S_{(2,1^4)}\boxtimes S_{(3,2,1^4)})+(-5)\cdot(S_{(2,1^4)}\boxtimes S_{(3,2^2,1^2)})+$ $(-3)\cdot(S_{(2,1^4)}\boxtimes S_{(3,2^3)})+(-4)\cdot(S_{(2,1^4)}\boxtimes S_{(3^2,1^3)})+(-4)\cdot(S_{(2,1^4)}\boxtimes S_{(3^2,2,1)})+$ $(-1)\cdot(S_{(2,1^4)}\boxtimes S_{(4,2,1^3)})+(-1)\cdot(S_{(2,1^4)}\boxtimes S_{(4,2^2,1)})+(-2)\cdot(S_{(2,1^4)}\boxtimes S_{(4,3,1^2)})+$ $(-1)\cdot(S_{(2,1^4)}\boxtimes S_{(4,3,2)})+(-1)\cdot(S_{(2,1^4)}\boxtimes S_{(4^2,1)})+(-1)\cdot(S_{(2,1^4)}\boxtimes S_{(5,4)})+(-1)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(1^9)})+(-4)\cdot(S_{(2^2,1^2)}\boxtimes S_{(2,1^7)})+(-7)\cdot(S_{(2^2,1^2)}\boxtimes S_{(2^2,1^5)})+(-8)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(2^3,1^3)})+(-5)\cdot(S_{(2^2,1^2)}\boxtimes S_{(2^4,1)})+(-4)\cdot(S_{(2^2,1^2)}\boxtimes S_{(3,1^6)})+(-9)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(3,2,1^4)})+(-10)\cdot(S_{(2^2,1^2)}\boxtimes S_{(3,2^2,1^2)})+(-4)\cdot(S_{(2^2,1^2)}\boxtimes S_{(3,2^3)})+(-6)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(3^2,1^3)})+(-6)\cdot(S_{(2^2,1^2)}\boxtimes S_{(3^2,2,1)})+(-1)\cdot(S_{(2^2,1^2)}\boxtimes S_{(3^3)})+(-1)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(4,1^5)})+(-3)\cdot(S_{(2^2,1^2)}\boxtimes S_{(4,2,1^3)})+(-3)\cdot(S_{(2^2,1^2)}\boxtimes S_{(4,2^2,1)})+(-4)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(4,3,1^2)})+(-2)\cdot(S_{(2^2,1^2)}\boxtimes S_{(4,3,2)})+(-1)\cdot(S_{(2^2,1^2)}\boxtimes S_{(4^2,1)})+(-1)\cdot$ $(S_{(2^2,1^2)}\boxtimes S_{(5,3,1)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(1^9)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(2,1^7)})+(-4)\cdot(S_{(2^3)}\boxtimes$ $S_{(2^2,1^5)})+(-4)\cdot(S_{(2^3)}\boxtimes S_{(2^3,1^3)})+(-2)\cdot(S_{(2^3)}\boxtimes S_{(2^4,1)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(3,1^6)})+$ $(-5)\cdot(S_{(2^3)}\boxtimes S_{(3,2,1^4)})+(-4)\cdot(S_{(2^3)}\boxtimes S_{(3,2^2,1^2)})+(-3)\cdot(S_{(2^3)}\boxtimes S_{(3,2^3)})+(-5)\cdot$ $(S_{(2^3)}\boxtimes S_{(3^2,1^3)})+(-3)\cdot(S_{(2^3)}\boxtimes S_{(3^2,2,1)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(4,1^5)})+(-2)\cdot(S_{(2^3)}\boxtimes$ $S_{(4,2,1^3)})+(-2)\cdot(S_{(2^3)}\boxtimes S_{(4,2^2,1)})+(-2)\cdot(S_{(2^3)}\boxtimes S_{(4,3,1^2)})+(-1)\cdot(S_{(2^3)}\boxtimes$ $S_{(4,3,2)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(4^2,1)})+(-1)\cdot(S_{(2^3)}\boxtimes S_{(5,2^2)})+(-1)\cdot(S_{(3,1^3)}\boxtimes S_{(1^9)})+$ $(-4)\cdot(S_{(3,1^3)}\boxtimes S_{(2,1^7)})+(-6)\cdot(S_{(3,1^3)}\boxtimes S_{(2^2,1^5)})+(-8)\cdot(S_{(3,1^3)}\boxtimes S_{(2^3,1^3)})+$ $(-5)\cdot(S_{(3,1^3)}\boxtimes S_{(2^4,1)})+(-5)\cdot(S_{(3,1^3)}\boxtimes S_{(3,1^6)})+(-9)\cdot(S_{(3,1^3)}\boxtimes S_{(3,2,1^4)})+$ $(-11)\cdot(S_{(3,1^3)}\boxtimes S_{(3,2^2,1^2)})+(-4)\cdot(S_{(3,1^3)}\boxtimes S_{(3,2^3)})+(-5)\cdot(S_{(3,1^3)}\boxtimes S_{(3^2,1^3)})+$ $(-6)\cdot(S_{(3,1^3)}\boxtimes S_{(3^2,2,1)})+(-2)\cdot(S_{(3,1^3)}\boxtimes S_{(3^3)})+(-2)\cdot(S_{(3,1^3)}\boxtimes S_{(4,1^5)})+(-5)\cdot$ $(S_{(3,1^3)}\boxtimes S_{(4,2,1^3)})+(-4)\cdot(S_{(3,1^3)}\boxtimes S_{(4,2^2,1)})+(-4)\cdot(S_{(3,1^3)}\boxtimes S_{(4,3,1^2)})+(-2)\cdot$ $(S_{(3,1^3)}\boxtimes S_{(4,3,2)})+(-1)\cdot(S_{(3,1^3)}\boxtimes S_{(4^2,1)})+(-1)\cdot(S_{(3,1^3)}\boxtimes S_{(5,2,1^2)})+(-1)\cdot$ $(S_{(3,1^3)}\boxtimes S_{(5,3,1)})+(-3)\cdot(S_{(3,2,1)}\boxtimes S_{(2,1^7)})+(-7)\cdot(S_{(3,2,1)}\boxtimes S_{(2^2,1^5)})+(-8)\cdot$ $(S_{(3,2,1)}\boxtimes S_{(2^3,1^3)})+(-6)\cdot(S_{(3,2,1)}\boxtimes S_{(2^4,1)})+(-6)\cdot(S_{(3,2,1)}\boxtimes S_{(3,1^6)})+(-15)\cdot$ $(S_{(3,2,1)}\boxtimes S_{(3,2,1^4)})+(-15)\cdot(S_{(3,2,1)}\boxtimes S_{(3,2^2,1^2)})+(-6)\cdot(S_{(3,2,1)}\boxtimes S_{(3,2^3)})+$ $(-9)\cdot(S_{(3,2,1)}\boxtimes S_{(3^2,1^3)})+(-9)\cdot(S_{(3,2,1)}\boxtimes S_{(3^2,2,1)})+(-1)\cdot(S_{(3,2,1)}\boxtimes S_{(3^3)})+$ $(-4)\cdot(S_{(3,2,1)}\boxtimes S_{(4,1^5)})+(-10)\cdot(S_{(3,2,1)}\boxtimes S_{(4,2,1^3)})+(-8)\cdot(S_{(3,2,1)}\boxtimes S_{(4,2^2,1)})+$ $(-6)\cdot(S_{(3,2,1)}\boxtimes S_{(4,3,1^2)})+(-4)\cdot(S_{(3,2,1)}\boxtimes S_{(4,3,2)})+(-1)\cdot(S_{(3,2,1)}\boxtimes S_{(4^2,1)})+$ $(-1)\cdot(S_{(3,2,1)}\boxtimes S_{(5,1^4)})+(-2)\cdot(S_{(3,2,1)}\boxtimes S_{(5,2,1^2)})+(-1)\cdot(S_{(3,2,1)}\boxtimes S_{(5,2^2)})+$ $(-1)\cdot(S_{(3,2,1)}\boxtimes S_{(5,3,1)})+(-1)\cdot(S_{(3^2)}\boxtimes S_{(2^2,1^5)})+(-2)\cdot(S_{(3^2)}\boxtimes S_{(2^3,1^3)})+(-1)\cdot$ $(S_{(3^2)}\boxtimes S_{(2^4,1)})+(-2)\cdot(S_{(3^2)}\boxtimes S_{(3,1^6)})+(-4)\cdot(S_{(3^2)}\boxtimes S_{(3,2,1^4)})+(-4)\cdot(S_{(3^2)}\boxtimes$ $S_{(3,2^2,1^2)})+(-2)\cdot(S_{(3^2)}\boxtimes S_{(3,2^3)})+(-3)\cdot(S_{(3^2)}\boxtimes S_{(3^2,1^3)})+(-2)\cdot(S_{(3^2)}\boxtimes$ $S_{(3^2,2,1)})+(-1)\cdot(S_{(3^2)}\boxtimes S_{(3^3)})+(-2)\cdot(S_{(3^2)}\boxtimes S_{(4,1^5)})+(-4)\cdot(S_{(3^2)}\boxtimes S_{(4,2,1^3)})+$ $(-3)\cdot(S_{(3^2)}\boxtimes S_{(4,2^2,1)})+(-2)\cdot(S_{(3^2)}\boxtimes S_{(4,3,1^2)})+(-1)\cdot(S_{(3^2)}\boxtimes S_{(4,3,2)})+$ $(-1)\cdot(S_{(3^2)}\boxtimes S_{(5,2,1^2)})+(-1)\cdot(S_{(3^2)}\boxtimes S_{(5,2^2)})+(-1)\cdot(S_{(4,1^2)}\boxtimes S_{(2,1^7)})+$ $(-2)\cdot(S_{(4,1^2)}\boxtimes S_{(2^2,1^5)})+(-4)\cdot(S_{(4,1^2)}\boxtimes S_{(2^3,1^3)})+(-2)\cdot(S_{(4,1^2)}\boxtimes S_{(2^4,1)})+$ $(-5)\cdot(S_{(4,1^2)}\boxtimes S_{(3,1^6)})+(-7)\cdot(S_{(4,1^2)}\boxtimes S_{(3,2,1^4)})+(-10)\cdot(S_{(4,1^2)}\boxtimes S_{(3,2^2,1^2)})+$ $(-3)\cdot(S_{(4,1^2)}\boxtimes S_{(3,2^3)})+(-3)\cdot(S_{(4,1^2)}\boxtimes S_{(3^2,1^3)})+(-5)\cdot(S_{(4,1^2)}\boxtimes S_{(3^2,2,1)})+$ $(-2)\cdot(S_{(4,1^2)}\boxtimes S_{(3^3)})+(-5)\cdot(S_{(4,1^2)}\boxtimes S_{(4,1^5)})+(-8)\cdot(S_{(4,1^2)}\boxtimes S_{(4,2,1^3)})+$ $(-6)\cdot(S_{(4,1^2)}\boxtimes S_{(4,2^2,1)})+(-3)\cdot(S_{(4,1^2)}\boxtimes S_{(4,3,1^2)})+(-2)\cdot(S_{(4,1^2)}\boxtimes S_{(4,3,2)})+$ $(-1)\cdot(S_{(4,1^2)}\boxtimes S_{(5,1^4)})+(-3)\cdot(S_{(4,1^2)}\boxtimes S_{(5,2,1^2)})+(-1)\cdot(S_{(4,1^2)}\boxtimes S_{(5,3,1)})+$ $(-2)\cdot(S_{(4,2)}\boxtimes S_{(2^2,1^5)})+(-2)\cdot(S_{(4,2)}\boxtimes S_{(2^3,1^3)})+(-2)\cdot(S_{(4,2)}\boxtimes S_{(2^4,1)})+$ $(-2)\cdot(S_{(4,2)}\boxtimes S_{(3,1^6)})+(-7)\cdot(S_{(4,2)}\boxtimes S_{(3,2,1^4)})+(-6)\cdot(S_{(4,2)}\boxtimes S_{(3,2^2,1^2)})+$ $(-4)\cdot(S_{(4,2)}\boxtimes S_{(3,2^3)})+(-5)\cdot(S_{(4,2)}\boxtimes S_{(3^2,1^3)})+(-4)\cdot(S_{(4,2)}\boxtimes S_{(3^2,2,1)})+\cdots$ | -665281 |

| $(6,9)$ | $\cdots + (-5)\cdot(S_{(4,2)}\boxtimes S_{(4,1^5)}) + (-7)\cdot(S_{(4,2)}\boxtimes S_{(4,2,1^3)}) + (-6)\cdot(S_{(4,2)}\boxtimes S_{(4,2^2,1)}) + (-3)\cdot(S_{(4,2)}\boxtimes S_{(4,3,1^2)}) + (-2)\cdot(S_{(4,2)}\boxtimes S_{(4,3,2)}) + (-3)\cdot(S_{(4,2)}\boxtimes S_{(5,1^4)}) + (-2)\cdot(S_{(4,2)}\boxtimes S_{(5,2,1^2)}) + (-2)\cdot(S_{(4,2)}\boxtimes S_{(5,2^2)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(2^4,1)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(3,1^6)}) + (-3)\cdot(S_{(5,1)}\boxtimes S_{(3,2,1^4)}) + (-3)\cdot(S_{(5,1)}\boxtimes S_{(3,2^2,1^2)}) + (-2)\cdot(S_{(5,1)}\boxtimes S_{(3,2^3)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(3^2,1^3)}) + (-2)\cdot(S_{(5,1)}\boxtimes S_{(3^2,2,1)}) + (-4)\cdot(S_{(5,1)}\boxtimes S_{(4,1^5)}) + (-5)\cdot(S_{(5,1)}\boxtimes S_{(4,2,1^3)}) + (-4)\cdot(S_{(5,1)}\boxtimes S_{(4,2^2,1)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(4,3,1^2)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(4,3,2)}) + (-3)\cdot(S_{(5,1)}\boxtimes S_{(5,1^4)}) + (-2)\cdot(S_{(5,1)}\boxtimes S_{(5,2,1^2)}) + (-1)\cdot(S_{(5,1)}\boxtimes S_{(5,2^2)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(3,2^3)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(3^2,1^3)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(4,1^5)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(4,2,1^3)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(4,2^2,1)}) + (-2)\cdot(S_{(6)}\boxtimes S_{(5,1^4)}) + (-1)\cdot(S_{(6)}\boxtimes S_{(5,2^2)})$ | -665281 |
| $(7,9)$ | $(S_{(1^7)}\boxtimes S_{(2,1^7)}) + (S_{(1^7)}\boxtimes S_{(2^2,1^5)}) + (S_{(1^7)}\boxtimes S_{(2^3,1^3)}) + (S_{(1^7)}\boxtimes S_{(2^4,1)}) + (S_{(1^7)}\boxtimes S_{(3^2,1^3)}) + (S_{(2,1^5)}\boxtimes S_{(1^9)}) + 2\cdot(S_{(2,1^5)}\boxtimes S_{(2,1^7)}) + 3\cdot(S_{(2,1^5)}\boxtimes S_{(2^2,1^5)}) + 3\cdot(S_{(2,1^5)}\boxtimes S_{(2^3,1^3)}) + 2\cdot(S_{(2,1^5)}\boxtimes S_{(2^4,1)}) + (S_{(2,1^5)}\boxtimes S_{(3,1^6)}) + 2\cdot(S_{(2,1^5)}\boxtimes S_{(3,2,1^4)}) + 2\cdot(S_{(2,1^5)}\boxtimes S_{(3,2^2,1^2)}) + (S_{(2,1^5)}\boxtimes S_{(3,2^3)}) + (S_{(2,1^5)}\boxtimes S_{(3^2,1^3)}) + (S_{(2,1^5)}\boxtimes S_{(3^2,2,1)}) + (S_{(2,1^5)}\boxtimes S_{(4,3,1^2)}) + (S_{(2^2,1^3)}\boxtimes S_{(1^9)}) + 2\cdot(S_{(2^2,1^3)}\boxtimes S_{(2,1^7)}) + 4\cdot(S_{(2^2,1^3)}\boxtimes S_{(2^2,1^5)}) + 4\cdot(S_{(2^2,1^3)}\boxtimes S_{(2^3,1^3)}) + 3\cdot(S_{(2^2,1^3)}\boxtimes S_{(2^4,1)}) + (S_{(2^2,1^3)}\boxtimes S_{(3,1^6)}) + 4\cdot(S_{(2^2,1^3)}\boxtimes S_{(3,2,1^4)}) + 4\cdot(S_{(2^2,1^3)}\boxtimes S_{(3,2^2,1^2)}) + 2\cdot(S_{(2^2,1^3)}\boxtimes S_{(3,2^3)}) + 3\cdot(S_{(2^2,1^3)}\boxtimes S_{(3^2,1^3)}) + 3\cdot(S_{(2^2,1^3)}\boxtimes S_{(3^2,2,1)}) + (S_{(2^2,1^3)}\boxtimes S_{(4,2,1^3)}) + (S_{(2^2,1^3)}\boxtimes S_{(4,2^2,1)}) + (S_{(2^2,1^3)}\boxtimes S_{(4,3,1^2)}) + (S_{(2^2,1^3)}\boxtimes S_{(4,3,2)}) + (S_{(2^2,1^3)}\boxtimes S_{(4^2,1)}) + (S_{(2^3,1)}\boxtimes S_{(2,1^7)}) + 2\cdot(S_{(2^3,1)}\boxtimes S_{(2^2,1^5)}) + 3\cdot(S_{(2^3,1)}\boxtimes S_{(2^3,1^3)}) + 2\cdot(S_{(2^3,1)}\boxtimes S_{(2^4,1)}) + (S_{(2^3,1)}\boxtimes S_{(3,1^6)}) + 3\cdot(S_{(2^3,1)}\boxtimes S_{(3,2,1^4)}) + 4\cdot(S_{(2^3,1)}\boxtimes S_{(3,2^2,1^2)}) + 2\cdot(S_{(2^3,1)}\boxtimes S_{(3,2^3)}) + 3\cdot(S_{(2^3,1)}\boxtimes S_{(3^2,1^3)}) + 3\cdot(S_{(2^3,1)}\boxtimes S_{(3^2,2,1)}) + (S_{(2^3,1)}\boxtimes S_{(3^3)}) + (S_{(2^3,1)}\boxtimes S_{(4,2,1^3)}) + (S_{(2^3,1)}\boxtimes S_{(4,2^2,1)}) + 2\cdot(S_{(2^3,1)}\boxtimes S_{(4,3,1^2)}) + (S_{(2^3,1)}\boxtimes S_{(4,3,2)}) + (S_{(2^3,1)}\boxtimes S_{(4^2,1)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(2,1^7)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(2^2,1^5)}) + 3\cdot(S_{(3,1^4)}\boxtimes S_{(2^3,1^3)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(2^4,1)}) + 3\cdot(S_{(3,1^4)}\boxtimes S_{(3,1^6)}) + 4\cdot(S_{(3,1^4)}\boxtimes S_{(3,2,1^4)}) + 5\cdot(S_{(3,1^4)}\boxtimes S_{(3,2^2,1^2)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(3,2^3)}) + (S_{(3,1^4)}\boxtimes S_{(3^2,1^3)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(3^2,2,1)}) + (S_{(3,1^4)}\boxtimes S_{(3^3)}) + (S_{(3,1^4)}\boxtimes S_{(4,1^5)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(4,2,1^3)}) + 2\cdot(S_{(3,1^4)}\boxtimes S_{(4,2^2,1)}) + (S_{(3,1^4)}\boxtimes S_{(4,3,1^2)}) + (S_{(3,1^4)}\boxtimes S_{(4,3,2)}) + (S_{(3,1^4)}\boxtimes S_{(5,3,1)}) + (S_{(3,2,1^2)}\boxtimes S_{(2,1^7)}) + 3\cdot(S_{(3,2,1^2)}\boxtimes S_{(2^2,1^5)}) + 4\cdot(S_{(3,2,1^2)}\boxtimes S_{(2^3,1^3)}) + 3\cdot(S_{(3,2,1^2)}\boxtimes S_{(2^4,1)}) + 3\cdot(S_{(3,2,1^2)}\boxtimes S_{(3,1^6)}) + 7\cdot(S_{(3,2,1^2)}\boxtimes S_{(3,2,1^4)}) + 8\cdot(S_{(3,2,1^2)}\boxtimes S_{(3,2^2,1^2)}) + 4\cdot(S_{(3,2,1^2)}\boxtimes S_{(3,2^3)}) + 5\cdot(S_{(3,2,1^2)}\boxtimes S_{(3^2,1^3)}) + 6\cdot(S_{(3,2,1^2)}\boxtimes S_{(3^2,2,1)}) + (S_{(3,2,1^2)}\boxtimes S_{(3^3)}) + 2\cdot(S_{(3,2,1^2)}\boxtimes S_{(4,1^5)}) + 5\cdot(S_{(3,2,1^2)}\boxtimes S_{(4,2,1^3)}) + 5\cdot(S_{(3,2,1^2)}\boxtimes S_{(4,2^2,1)}) + 4\cdot(S_{(3,2,1^2)}\boxtimes S_{(4,3,1^2)}) + 3\cdot(S_{(3,2,1^2)}\boxtimes S_{(4,3,2)}) + (S_{(3,2,1^2)}\boxtimes S_{(4^2,1)}) + (S_{(3,2,1^2)}\boxtimes S_{(5,2,1^2)}) + (S_{(3,2,1^2)}\boxtimes S_{(5,2^2)}) + (S_{(3,2,1^2)}\boxtimes S_{(5,3,1)}) + (S_{(3,2,1^2)}\boxtimes S_{(5,4)}) + (S_{(3,2^2)}\boxtimes S_{(2^2,1^5)}) + 2\cdot(S_{(3,2^2)}\boxtimes S_{(2^3,1^3)}) + (S_{(3,2^2)}\boxtimes S_{(2^4,1)}) + (S_{(3,2^2)}\boxtimes S_{(3,1^6)}) + 3\cdot(S_{(3,2^2)}\boxtimes S_{(3,2,1^4)}) + 5\cdot(S_{(3,2^2)}\boxtimes S_{(3,2^2,1^2)}) + (S_{(3,2^2)}\boxtimes S_{(3,2^3)}) + 3\cdot(S_{(3,2^2)}\boxtimes S_{(3^2,1^3)}) + 4\cdot(S_{(3,2^2)}\boxtimes S_{(3^2,2,1)}) + (S_{(3,2^2)}\boxtimes S_{(3^3)}) + (S_{(3,2^2)}\boxtimes S_{(4,1^5)}) + 3\cdot(S_{(3,2^2)}\boxtimes S_{(4,2,1^3)}) + 3\cdot(S_{(3,2^2)}\boxtimes S_{(4,2^2,1)}) + 3\cdot(S_{(3,2^2)}\boxtimes S_{(4,3,1^2)}) + 2\cdot(S_{(3,2^2)}\boxtimes S_{(4,3,2)}) + (S_{(3,2^2)}\boxtimes S_{(4^2,1)}) + (S_{(3,2^2)}\boxtimes S_{(5,2,1^2)}) + (S_{(3,2^2)}\boxtimes S_{(5,3,1)}) + (S_{(3^2,1)}\boxtimes S_{(2^2,1^5)}) + (S_{(3^2,1)}\boxtimes S_{(2^3,1^3)}) + (S_{(3^2,1)}\boxtimes S_{(2^4,1)}) + 3\cdot(S_{(3^2,1)}\boxtimes S_{(3,2,1^4)}) + 3\cdot(S_{(3^2,1)}\boxtimes S_{(3,2^2,1^2)}) + 2\cdot(S_{(3^2,1)}\boxtimes S_{(3,2^3)}) + 4\cdot(S_{(3^2,1)}\boxtimes S_{(3^2,1^3)}) + 3\cdot(S_{(3^2,1)}\boxtimes S_{(3^2,2,1)}) + (S_{(3^2,1)}\boxtimes S_{(4,1^5)}) + 3\cdot(S_{(3^2,1)}\boxtimes S_{(4,2,1^3)}) + 3\cdot(S_{(3^2,1)}\boxtimes S_{(4,2^2,1)}) + 4\cdot(S_{(3^2,1)}\boxtimes S_{(4,3,1^2)}) + 2\cdot(S_{(3^2,1)}\boxtimes S_{(4,3,2)}) + (S_{(3^2,1)}\boxtimes S_{(4^2,1)}) + (S_{(3^2,1)}\boxtimes S_{(5,1^4)}) + (S_{(3^2,1)}\boxtimes S_{(5,2,1^2)}) + (S_{(3^2,1)}\boxtimes S_{(5,2^2)}) + (S_{(3^2,1)}\boxtimes S_{(5,3,1)}) + (S_{(4,1^3)}\boxtimes S_{(2^2,1^5)}) + (S_{(4,1^3)}\boxtimes S_{(2^3,1^3)}) + (S_{(4,1^3)}\boxtimes S_{(2^4,1)}) + 2\cdot(S_{(4,1^3)}\boxtimes S_{(3,1^6)}) + \cdots$ | 1239838 |

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$(7,9)$	$\cdots + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2,1^4)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^2,1^2)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^3)}) + (S_{(4,1^3)} \boxtimes S_{(3^2,1^3)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2,1)}) + (S_{(4,1^3)} \boxtimes S_{(3^3)}) + 3 \cdot (S_{(4,1^3)} \boxtimes S_{(4,1^5)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(4,2,1^3)}) + 4 \cdot (S_{(4,1^3)} \boxtimes S_{(4,2^2,1)}) + (S_{(4,1^3)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(4,3,2)}) + (S_{(4,1^3)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(4,1^3)} \boxtimes S_{(5,2,1^2)}) + (S_{(4,1^3)} \boxtimes S_{(5,2^2)}) + (S_{(4,1^3)} \boxtimes S_{(5,3,1)}) + (S_{(4,1^3)} \boxtimes S_{(6,3)}) + (S_{(4,2,1)} \boxtimes S_{(2^3,1^3)}) + (S_{(4,2,1)} \boxtimes S_{(2^4,1)}) + (S_{(4,2,1)} \boxtimes S_{(3,1^6)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2,1^4)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^2,1^2)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(3,2^3)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,1^3)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(3^2,2,1)}) + (S_{(4,2,1)} \boxtimes S_{(3^3)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(4,1^5)}) + 7 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2,1^3)}) + 6 \cdot (S_{(4,2,1)} \boxtimes S_{(4,2^2,1)}) + 5 \cdot (S_{(4,2,1)} \boxtimes S_{(4,3,1^2)}) + 3 \cdot (S_{(4,2,1)} \boxtimes S_{(4,3,2)}) + (S_{(4,2,1)} \boxtimes S_{(4^2,1)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(5,1^4)}) + 4 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(4,2,1)} \boxtimes S_{(5,3,1)}) + (S_{(4,2,1)} \boxtimes S_{(6,2,1)}) + (S_{(4,3)} \boxtimes S_{(3,2,1^4)}) + (S_{(4,3)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(4,3)} \boxtimes S_{(3,2^3)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(3^2,1^3)}) + (S_{(4,3)} \boxtimes S_{(3^2,2,1)}) + 3 \cdot (S_{(4,3)} \boxtimes S_{(4,2,1^3)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(4,2^2,1)}) + 3 \cdot (S_{(4,3)} \boxtimes S_{(4,3,1^2)}) + (S_{(4,3)} \boxtimes S_{(4,3,2)}) + (S_{(4,3)} \boxtimes S_{(4^2,1)}) + (S_{(4,3)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(4,3)} \boxtimes S_{(5,2,1^2)}) + (S_{(4,3)} \boxtimes S_{(5,2^2)}) + (S_{(4,3)} \boxtimes S_{(5,3,1)}) + (S_{(4,3)} \boxtimes S_{(6,1^3)}) + (S_{(5,1^2)} \boxtimes S_{(3,2,1^4)}) + (S_{(5,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(3,2^3)}) + (S_{(5,1^2)} \boxtimes S_{(3^2,1^3)}) + (S_{(5,1^2)} \boxtimes S_{(3^2,2,1)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(4,1^5)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(4,2,1^3)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(4,2^2,1)}) + (S_{(5,1^2)} \boxtimes S_{(4,3,1^2)}) + (S_{(5,1^2)} \boxtimes S_{(4,3,2)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(5,1^4)}) + 3 \cdot (S_{(5,1^2)} \boxtimes S_{(5,2,1^2)}) + 2 \cdot (S_{(5,1^2)} \boxtimes S_{(5,2^2)}) + (S_{(5,1^2)} \boxtimes S_{(5,3,1)}) + (S_{(5,1^2)} \boxtimes S_{(6,1^3)}) + (S_{(5,1^2)} \boxtimes S_{(6,2,1)}) + (S_{(5,2)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(5,2)} \boxtimes S_{(3^2,1^3)}) + (S_{(5,2)} \boxtimes S_{(3^2,2,1)}) + (S_{(5,2)} \boxtimes S_{(4,1^5)}) + 3 \cdot (S_{(5,2)} \boxtimes S_{(4,2,1^3)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,2^2,1)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(4,3,1^2)}) + (S_{(5,2)} \boxtimes S_{(4,3,2)}) + 2 \cdot (S_{(5,2)} \boxtimes S_{(5,1^4)}) + 4 \cdot (S_{(5,2)} \boxtimes S_{(5,2,1^2)}) + (S_{(5,2)} \boxtimes S_{(5,2^2)}) + (S_{(5,2)} \boxtimes S_{(5,3,1)}) + (S_{(5,2)} \boxtimes S_{(6,1^3)}) + (S_{(5,2)} \boxtimes S_{(6,2,1)}) + (S_{(6,1)} \boxtimes S_{(4,2,1^3)}) + (S_{(6,1)} \boxtimes S_{(4,2^2,1)}) + (S_{(6,1)} \boxtimes S_{(4,3,1^2)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(5,1^4)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(5,2,1^2)}) + (S_{(6,1)} \boxtimes S_{(5,2^2)}) + 2 \cdot (S_{(6,1)} \boxtimes S_{(6,1^3)}) + (S_{(6,1)} \boxtimes S_{(6,2,1)}) + (S_{(7)} \boxtimes S_{(5,2,1^2)}) + (S_{(7)} \boxtimes S_{(6,1^3)})$	1239838
$(8,9)$	$(-1) \cdot (S_{(1^8)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(2,1^6)} \boxtimes S_{(1^9)}) + (-1) \cdot (S_{(2,1^6)} \boxtimes S_{(2,1^7)}) + (-1) \cdot (S_{(2,1^6)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(2,1^6)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(2,1^6)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(2,1^7)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(2^4,1)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(3,1^6)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(2^2,1^4)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(2^4,1)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(2^3,1^2)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(2^4)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(2^4)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(2^4)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(2,1^7)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(3,1^6)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(3,1^5)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^2,1^5)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(2^4,1)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,1^6)}) + (-2) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,2,1^4)}) + (-2) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(4,1^5)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(3,2,1^3)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(2^3,1^3)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(2^4,1)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3,2,1^4)}) + (-2) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3^2,1^3)}) + (-2) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(3^3)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(3,2^2,1)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,3,1^2)}) + \cdots$	-1088641

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$(8,9)$	$\cdots + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(3^2,1^2)} \boxtimes S_{(4^2,1)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(3^2,2)} \boxtimes S_{(4^2,1)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(3,1^6)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(4,1^5)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(4,1^4)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2,1^4)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,1^5)}) + (-2) \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2,1^3)}) + (-2) \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,1^4)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,2^2)}) + (-1) \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(3,2^2,1^2)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(3^3)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(4,2^2)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(3^2,2,1)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(4,2^2,1)}) + (-2) \cdot (S_{(4,3,1)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(4^2,1)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(5,2^2)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(4,3,1)} \boxtimes S_{(5,4)}) + (-1) \cdot (S_{(4^2)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(4^2)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(4,1^5)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(5,1^4)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(5,2^2)}) + (-1) \cdot (S_{(5,1^3)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(4,2,1^3)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(4,2^2,1)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(4,3,2)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(5,1^4)}) + (-2) \cdot (S_{(5,2,1)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(5,2^2)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(6,1^3)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(5,2,1)} \boxtimes S_{(6,3)}) + (-1) \cdot (S_{(5,3)} \boxtimes S_{(4,3,1^2)}) + (-1) \cdot (S_{(5,3)} \boxtimes S_{(4^2,1)}) + (-1) \cdot (S_{(5,3)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(5,3)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(5,3)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(5,1^4)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(5,2^2)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(6,1^3)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(6,1^2)} \boxtimes S_{(7,2)}) + (-1) \cdot (S_{(6,2)} \boxtimes S_{(5,2,1^2)}) + (-1) \cdot (S_{(6,2)} \boxtimes S_{(5,3,1)}) + (-1) \cdot (S_{(6,2)} \boxtimes S_{(6,1^3)}) + (-1) \cdot (S_{(6,2)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(6,2)} \boxtimes S_{(7,1^2)}) + (-1) \cdot (S_{(7,1)} \boxtimes S_{(6,1^3)}) + (-1) \cdot (S_{(7,1)} \boxtimes S_{(6,2,1)}) + (-1) \cdot (S_{(7,1)} \boxtimes S_{(7,1^2)}) + (-1) \cdot (S_{(8)} \boxtimes S_{(7,1^2)})$	-1088641
$(9,9)$	$(S_{(1^9)} \boxtimes S_{(1^9)}) + (S_{(2,1^7)} \boxtimes S_{(2,1^7)}) + (S_{(2^2,1^5)} \boxtimes S_{(2^2,1^5)}) + (S_{(2^3,1^3)} \boxtimes S_{(2^3,1^3)}) + (S_{(2^4,1)} \boxtimes S_{(2^4,1)}) + (S_{(3,1^6)} \boxtimes S_{(3,1^6)}) + (S_{(3,2,1^4)} \boxtimes S_{(3,2,1^4)}) + (S_{(3,2^2,1^2)} \boxtimes S_{(3,2^2,1^2)}) + (S_{(3,2^3)} \boxtimes S_{(3,2^3)}) + (S_{(3^2,1^3)} \boxtimes S_{(3^2,1^3)}) + (S_{(3^2,2,1)} \boxtimes S_{(3^2,2,1)}) + (S_{(3^3)} \boxtimes S_{(3^3)}) + (S_{(4,1^5)} \boxtimes S_{(4,1^5)}) + (S_{(4,2,1^3)} \boxtimes S_{(4,2,1^3)}) + (S_{(4,2^2,1)} \boxtimes S_{(4,2^2,1)}) + (S_{(4,3,1^2)} \boxtimes S_{(4,3,1^2)}) + (S_{(4,3,2)} \boxtimes S_{(4,3,2)}) + (S_{(4^2,1)} \boxtimes S_{(4^2,1)}) + (S_{(5,1^4)} \boxtimes S_{(5,1^4)}) + (S_{(5,2,1^2)} \boxtimes S_{(5,2,1^2)}) + (S_{(5,2^2)} \boxtimes S_{(5,2^2)}) + (S_{(5,3,1)} \boxtimes S_{(5,3,1)}) + (S_{(5,4)} \boxtimes S_{(5,4)}) + (S_{(6,1^3)} \boxtimes S_{(6,1^3)}) + (S_{(6,2,1)} \boxtimes S_{(6,2,1)}) + (S_{(6,3)} \boxtimes S_{(6,3)}) + (S_{(7,1^2)} \boxtimes S_{(7,1^2)}) + (S_{(7,2)} \boxtimes S_{(7,2)}) + (S_{(8,1)} \boxtimes S_{(8,1)}) + (S_{(9)} \boxtimes S_{(9)})$	362880
$(0,10)$	0	0
$(1,10)$	0	0
$(2,10)$	0	0
$(3,10)$	$(-1) \cdot (S_{(1^3)} \boxtimes S_{(1^{10})}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2,1^8)}) + (-2) \cdot (S_{(1^3)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(1^3)} \boxtimes S_{(2^4,1^2)}) + (S_{(1^3)} \boxtimes S_{(3^2,2^2)}) + (-3) \cdot (S_{(2,1)} \boxtimes S_{(1^{10})}) + (-4) \cdot (S_{(2,1)} \boxtimes S_{(2,1^8)}) + (-3) \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^6)}) + (-3) \cdot (S_{(2,1)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^5)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(1^{10})}) + (-2) \cdot (S_{(3)} \boxtimes S_{(2,1^8)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(3)} \boxtimes S_{(2^5)})$	-1091

$(4, 10)$	$2 \cdot (S_{(1^4)} \boxtimes S_{(1^{10})}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(2,1^8)}) + 4 \cdot (S_{(1^4)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(2^3,1^4)}) + 3 \cdot (S_{(1^4)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(3,2,1^5)}) + (S_{(1^4)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(1^4)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(1^4)} \boxtimes S_{(3^2,1^4)}) + (S_{(1^4)} \boxtimes S_{(3^2,2^2)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(1^{10})}) + 8 \cdot (S_{(2,1^2)} \boxtimes S_{(2,1^8)}) + 10 \cdot (S_{(2,1^2)} \boxtimes S_{(2^2,1^6)}) + 9 \cdot (S_{(2,1^2)} \boxtimes S_{(2^3,1^4)}) + 6 \cdot (S_{(2,1^2)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(2^5)}) + 4 \cdot (S_{(2,1^2)} \boxtimes S_{(3,1^7)}) + 6 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2,1^5)}) + 5 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 3 \cdot (S_{(2,1^2)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(2,1^2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(1^{10})}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(2,1^8)}) + 8 \cdot (S_{(2^2)} \boxtimes S_{(2^2,1^6)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(2^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^2)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(3,1^7)}) + 4 \cdot (S_{(2^2)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(2^2)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(2^2)} \boxtimes S_{(3^2,1^4)}) + (S_{(2^2)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(1^{10})}) + 8 \cdot (S_{(3,1)} \boxtimes S_{(2,1^8)}) + 8 \cdot (S_{(3,1)} \boxtimes S_{(2^2,1^6)}) + 9 \cdot (S_{(3,1)} \boxtimes S_{(2^3,1^4)}) + 6 \cdot (S_{(3,1)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(2^5)}) + 6 \cdot (S_{(3,1)} \boxtimes S_{(3,1^7)}) + 7 \cdot (S_{(3,1)} \boxtimes S_{(3,2,1^5)}) + 7 \cdot (S_{(3,1)} \boxtimes S_{(3,2^2,1^3)}) + 4 \cdot (S_{(3,1)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(3,1)} \boxtimes S_{(3^2,1^4)}) + 3 \cdot (S_{(3,1)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(3,1)} \boxtimes S_{(3^2,2^2)}) + (S_{(3,1)} \boxtimes S_{(3^3,1)}) + (S_{(3,1)} \boxtimes S_{(4,3,1^3)}) + (S_{(3,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(3,1)} \boxtimes S_{(4^2,1^2)}) + (S_{(3,1)} \boxtimes S_{(5^2)}) + (S_{(4)} \boxtimes S_{(1^{10})}) + 2 \cdot (S_{(4)} \boxtimes S_{(2,1^8)}) + 3 \cdot (S_{(4)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(4)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(4)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(4)} \boxtimes S_{(3,1^7)}) + 2 \cdot (S_{(4)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(4)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(4)} \boxtimes S_{(3,2^3,1)}) + (S_{(4)} \boxtimes S_{(3^2,2,1^2)})$	64699

$(5,10)$	$(-2)\cdot(S_{(1^5)}\boxtimes S_{(1^{10})})+(-2)\cdot(S_{(1^5)}\boxtimes S_{(2,1^8)})+(-5)\cdot(S_{(1^5)}\boxtimes S_{(2^2,1^6)})+(-4)\cdot(S_{(1^5)}\boxtimes S_{(2^3,1^4)})+(-4)\cdot(S_{(1^5)}\boxtimes S_{(2^4,1^2)})+(-1)\cdot(S_{(1^5)}\boxtimes S_{(3,1^7)})+(-3)\cdot(S_{(1^5)}\boxtimes S_{(3,2,1^5)})+(-3)\cdot(S_{(1^5)}\boxtimes S_{(3,2^2,1^3)})+(-2)\cdot(S_{(1^5)}\boxtimes S_{(3,2^3,1)})+(-3)\cdot(S_{(1^5)}\boxtimes S_{(3^2,1^4)})+(-2)\cdot(S_{(1^5)}\boxtimes S_{(3^2,2,1^2)})+(-2)\cdot(S_{(1^5)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(1^5)}\boxtimes S_{(4,2^2,1^2)})+(-1)\cdot(S_{(1^5)}\boxtimes S_{(4,3,1^3)})+(-1)\cdot(S_{(1^5)}\boxtimes S_{(4^2,1^2)})+(-4)\cdot(S_{(2,1^3)}\boxtimes S_{(1^{10})})+(-9)\cdot(S_{(2,1^3)}\boxtimes S_{(2,1^8)})+(-14)\cdot(S_{(2,1^3)}\boxtimes S_{(2^2,1^6)})+(-15)\cdot(S_{(2,1^3)}\boxtimes S_{(2^3,1^4)})+(-11)\cdot(S_{(2,1^3)}\boxtimes S_{(2^4,1^2)})+(-4)\cdot(S_{(2,1^3)}\boxtimes S_{(2^5)})+(-5)\cdot(S_{(2,1^3)}\boxtimes S_{(3,1^7)})+(-13)\cdot(S_{(2,1^3)}\boxtimes S_{(3,2,1^5)})+(-13)\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^2,1^3)})+(-9)\cdot(S_{(2,1^3)}\boxtimes S_{(3,2^3,1)})+(-9)\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,1^4)})+(-8)\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2,1^2)})+(-4)\cdot(S_{(2,1^3)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(2,1^3)}\boxtimes S_{(3^3,1)})+(-1)\cdot(S_{(2,1^3)}\boxtimes S_{(4,1^6)})+(-3)\cdot(S_{(2,1^3)}\boxtimes S_{(4,2,1^4)})+(-2)\cdot(S_{(2,1^3)}\boxtimes S_{(4,2^2,1^2)})+(-2)\cdot(S_{(2,1^3)}\boxtimes S_{(4,2^3)})+(-4)\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,1^3)})+(-2)\cdot(S_{(2,1^3)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(2,1^3)}\boxtimes S_{(4^2,1^2)})+(-3)\cdot(S_{(2^2,1)}\boxtimes S_{(1^{10})})+(-9)\cdot(S_{(2^2,1)}\boxtimes S_{(2,1^8)})+(-15)\cdot(S_{(2^2,1)}\boxtimes S_{(2^2,1^6)})+(-15)\cdot(S_{(2^2,1)}\boxtimes S_{(2^3,1^4)})+(-13)\cdot(S_{(2^2,1)}\boxtimes S_{(2^4,1^2)})+(-4)\cdot(S_{(2^2,1)}\boxtimes S_{(2^5)})+(-8)\cdot(S_{(2^2,1)}\boxtimes S_{(3,1^7)})+(-17)\cdot(S_{(2^2,1)}\boxtimes S_{(3,2,1^5)})+(-17)\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^2,1^3)})+(-11)\cdot(S_{(2^2,1)}\boxtimes S_{(3,2^3,1)})+(-10)\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,1^4)})+(-9)\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2,1^2)})+(-5)\cdot(S_{(2^2,1)}\boxtimes S_{(3^2,2^2)})+(-2)\cdot(S_{(2^2,1)}\boxtimes S_{(3^3,1)})+(-2)\cdot(S_{(2^2,1)}\boxtimes S_{(4,1^6)})+(-5)\cdot(S_{(2^2,1)}\boxtimes S_{(4,2,1^4)})+(-5)\cdot(S_{(2^2,1)}\boxtimes S_{(4,2^2,1^2)})+(-1)\cdot(S_{(2^2,1)}\boxtimes S_{(4,2^3)})+(-3)\cdot(S_{(2^2,1)}\boxtimes S_{(4,3,1^3)})+(-3)\cdot(S_{(2^2,1)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(2^2,1)}\boxtimes S_{(4^2,1^2)})+(-3)\cdot(S_{(3,1^2)}\boxtimes S_{(1^{10})})+(-10)\cdot(S_{(3,1^2)}\boxtimes S_{(2,1^8)})+(-15)\cdot(S_{(3,1^2)}\boxtimes S_{(2^2,1^6)})+(-19)\cdot(S_{(3,1^2)}\boxtimes S_{(2^3,1^4)})+(-12)\cdot(S_{(3,1^2)}\boxtimes S_{(2^4,1^2)})+(-7)\cdot(S_{(3,1^2)}\boxtimes S_{(2^5)})+(-11)\cdot(S_{(3,1^2)}\boxtimes S_{(3,1^7)})+(-20)\cdot(S_{(3,1^2)}\boxtimes S_{(3,2,1^5)})+(-21)\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^2,1^3)})+(-13)\cdot(S_{(3,1^2)}\boxtimes S_{(3,2^3,1)})+(-9)\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,1^4)})+(-12)\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,2,1^2)})+(-4)\cdot(S_{(3,1^2)}\boxtimes S_{(3^2,2^2)})+(-3)\cdot(S_{(3,1^2)}\boxtimes S_{(3^3,1)})+(-3)\cdot(S_{(3,1^2)}\boxtimes S_{(4,1^6)})+(-8)\cdot(S_{(3,1^2)}\boxtimes S_{(4,2,1^4)})+(-5)\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^2,1^2)})+(-4)\cdot(S_{(3,1^2)}\boxtimes S_{(4,2^3)})+(-4)\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,1^3)})+(-3)\cdot(S_{(3,1^2)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(3,1^2)}\boxtimes S_{(4^2,2)})+(-1)\cdot(S_{(3,2)}\boxtimes S_{(1^{10})})+(-6)\cdot(S_{(3,2)}\boxtimes S_{(2,1^8)})+(-12)\cdot(S_{(3,2)}\boxtimes S_{(2^2,1^6)})+(-12)\cdot(S_{(3,2)}\boxtimes S_{(2^3,1^4)})+(-11)\cdot(S_{(3,2)}\boxtimes S_{(2^4,1^2)})+(-3)\cdot(S_{(3,2)}\boxtimes S_{(2^5)})+(-10)\cdot(S_{(3,2)}\boxtimes S_{(3,1^7)})+(-17)\cdot(S_{(3,2)}\boxtimes S_{(3,2,1^5)})+(-18)\cdot(S_{(3,2)}\boxtimes S_{(3,2^2,1^3)})+(-11)\cdot(S_{(3,2)}\boxtimes S_{(3,2^3,1)})+(-7)\cdot(S_{(3,2)}\boxtimes S_{(3^2,1^4)})+(-9)\cdot(S_{(3,2)}\boxtimes S_{(3^2,2,1^2)})+(-4)\cdot(S_{(3,2)}\boxtimes S_{(3^2,2^2)})+(-2)\cdot(S_{(3,2)}\boxtimes S_{(3^3,1)})+(-5)\cdot(S_{(3,2)}\boxtimes S_{(4,1^6)})+(-6)\cdot(S_{(3,2)}\boxtimes S_{(4,2,1^4)})+(-7)\cdot(S_{(3,2)}\boxtimes S_{(4,2^2,1^2)})+(-1)\cdot(S_{(3,2)}\boxtimes S_{(4,2^3)})+(-2)\cdot(S_{(3,2)}\boxtimes S_{(4,3,1^3)})+(-3)\cdot(S_{(3,2)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(3,2)}\boxtimes S_{(4,3^2)})+(-4)\cdot(S_{(4,1)}\boxtimes S_{(2,1^8)})+(-7)\cdot(S_{(4,1)}\boxtimes S_{(2^2,1^6)})+(-9)\cdot(S_{(4,1)}\boxtimes S_{(2^3,1^4)})+(-7)\cdot(S_{(4,1)}\boxtimes S_{(2^4,1^2)})+(-2)\cdot(S_{(4,1)}\boxtimes S_{(2^5)})+(-9)\cdot(S_{(4,1)}\boxtimes S_{(3,1^7)})+(-13)\cdot(S_{(4,1)}\boxtimes S_{(3,2,1^5)})+(-15)\cdot(S_{(4,1)}\boxtimes S_{(3,2^2,1^3)})+(-9)\cdot(S_{(4,1)}\boxtimes S_{(3,2^3,1)})+(-4)\cdot(S_{(4,1)}\boxtimes S_{(3^2,1^4)})+(-7)\cdot(S_{(4,1)}\boxtimes S_{(3^2,2,1^2)})+(-2)\cdot(S_{(4,1)}\boxtimes S_{(3^2,2^2)})+(-3)\cdot(S_{(4,1)}\boxtimes S_{(3^3,1)})+(-6)\cdot(S_{(4,1)}\boxtimes S_{(4,1^6)})+(-6)\cdot(S_{(4,1)}\boxtimes S_{(4,2,1^4)})+(-6)\cdot(S_{(4,1)}\boxtimes S_{(4,2^2,1^2)})+(-2)\cdot(S_{(4,1)}\boxtimes S_{(4,2^3)})+(-1)\cdot(S_{(4,1)}\boxtimes S_{(4,3,1^3)})+(-2)\cdot(S_{(4,1)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(4,1)}\boxtimes S_{(4,3^2)})+(-1)\cdot(S_{(5)}\boxtimes S_{(2^2,1^6)})+(-1)\cdot(S_{(5)}\boxtimes S_{(2^3,1^4)})+(-2)\cdot(S_{(5)}\boxtimes S_{(2^4,1^2)})+(-3)\cdot(S_{(5)}\boxtimes S_{(3,1^7)})+(-3)\cdot(S_{(5)}\boxtimes S_{(3,2,1^5)})+(-4)\cdot(S_{(5)}\boxtimes S_{(3,2^2,1^3)})+(-2)\cdot(S_{(5)}\boxtimes S_{(3,2^3,1)})+(-1)\cdot(S_{(5)}\boxtimes S_{(3^2,1^4)})+(-1)\cdot(S_{(5)}\boxtimes S_{(3^2,2,1^2)})+(-1)\cdot(S_{(5)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(5)}\boxtimes S_{(3^3,1)})+(-3)\cdot(S_{(5)}\boxtimes S_{(4,1^6)})+(-1)\cdot(S_{(5)}\boxtimes S_{(4,2,1^4)})+(-3)\cdot(S_{(5)}\boxtimes S_{(4,2^2,1^2)})+(-1)\cdot(S_{(5)}\boxtimes S_{(4,3^2)})$	-763561

| $(6,10)$ | $(S_{(1^6)} \boxtimes S_{(1^{10})}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(2,1^8)}) + 4 \cdot (S_{(1^6)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(2^3,1^4)}) + 4 \cdot (S_{(1^6)} \boxtimes S_{(2^4,1^2)}) + (S_{(1^6)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(1^6)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(1^6)} \boxtimes S_{(3^2,2^2)}) + (S_{(1^6)} \boxtimes S_{(4,3,1^3)}) + (S_{(1^6)} \boxtimes S_{(4,3,2,1)}) + (S_{(1^6)} \boxtimes S_{(4^2,1^2)}) + (S_{(1^6)} \boxtimes S_{(5^2)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(1^{10})}) + 7 \cdot (S_{(2,1^4)} \boxtimes S_{(2,1^8)}) + 10 \cdot (S_{(2,1^4)} \boxtimes S_{(2^2,1^6)}) + 13 \cdot (S_{(2,1^4)} \boxtimes S_{(2^3,1^4)}) + 10 \cdot (S_{(2,1^4)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(2^5)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(3,1^7)}) + 10 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2,1^5)}) + 13 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^2,1^3)}) + 9 \cdot (S_{(2,1^4)} \boxtimes S_{(3,2^3,1)}) + 8 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,1^4)}) + 10 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(2,1^4)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(2,1^4)} \boxtimes S_{(4,2^3)}) + 5 \cdot (S_{(2,1^4)} \boxtimes S_{(4,3,1^3)}) + 4 \cdot (S_{(2,1^4)} \boxtimes S_{(4,3,2,1)}) + 3 \cdot (S_{(2,1^4)} \boxtimes S_{(4^2,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(4^2,2)}) + (S_{(2,1^4)} \boxtimes S_{(5,3,1^2)}) + (S_{(2,1^4)} \boxtimes S_{(5,4,1)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(1^{10})}) + 7 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2,1^8)}) + 15 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^2,1^6)}) + 16 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^3,1^4)}) + 15 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(2^5)}) + 6 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,1^7)}) + 18 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2,1^5)}) + 21 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 15 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3,2^3,1)}) + 15 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,1^4)}) + 16 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 9 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(3^3,1)}) + 2 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,1^6)}) + 7 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 3 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,2^3)}) + 9 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,1^3)}) + 8 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4,3,2,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(4,3^2)}) + 4 \cdot (S_{(2^2,1^2)} \boxtimes S_{(4^2,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(4^2,2)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,2,1^3)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,2^2,1)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,3,1^2)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,3,2)}) + (S_{(2^2,1^2)} \boxtimes S_{(5,4,1)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(2,1^8)}) + 6 \cdot (S_{(2^3)} \boxtimes S_{(2^2,1^6)}) + 8 \cdot (S_{(2^3)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(2^4,1^2)}) + 4 \cdot (S_{(2^3)} \boxtimes S_{(2^5)}) + 4 \cdot (S_{(2^3)} \boxtimes S_{(3,1^7)}) + 10 \cdot (S_{(2^3)} \boxtimes S_{(3,2,1^5)}) + 12 \cdot (S_{(2^3)} \boxtimes S_{(3,2^2,1^3)}) + 8 \cdot (S_{(2^3)} \boxtimes S_{(3,2^3,1)}) + 7 \cdot (S_{(2^3)} \boxtimes S_{(3^2,1^4)}) + 9 \cdot (S_{(2^3)} \boxtimes S_{(3^2,2,1^2)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(3^2,2^2)}) + 2 \cdot (S_{(2^3)} \boxtimes S_{(3^3,1)}) + (S_{(2^3)} \boxtimes S_{(4,1^6)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,2^2,1^2)}) + 3 \cdot (S_{(2^3)} \boxtimes S_{(4,2^3)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,3,1^3)}) + 5 \cdot (S_{(2^3)} \boxtimes S_{(4,3,2,1)}) + (S_{(2^3)} \boxtimes S_{(4^2,1^2)}) + (S_{(2^3)} \boxtimes S_{(4^2,2)}) + (S_{(2^3)} \boxtimes S_{(5,2,1^3)}) + (S_{(2^3)} \boxtimes S_{(5,3,1^2)}) + (S_{(2^3)} \boxtimes S_{(5,3,2)}) + (S_{(3,1^3)} \boxtimes S_{(1^{10})}) + 7 \cdot (S_{(3,1^3)} \boxtimes S_{(2,1^8)}) + 11 \cdot (S_{(3,1^3)} \boxtimes S_{(2^2,1^6)}) + 16 \cdot (S_{(3,1^3)} \boxtimes S_{(2^3,1^4)}) + 12 \cdot (S_{(3,1^3)} \boxtimes S_{(2^4,1^2)}) + 6 \cdot (S_{(3,1^3)} \boxtimes S_{(2^5)}) + 10 \cdot (S_{(3,1^3)} \boxtimes S_{(3,1^7)}) + 19 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2,1^5)}) + 25 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^2,1^3)}) + 16 \cdot (S_{(3,1^3)} \boxtimes S_{(3,2^3,1)}) + 10 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,1^4)}) + 18 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2,1^2)}) + 6 \cdot (S_{(3,1^3)} \boxtimes S_{(3^2,2^2)}) + 6 \cdot (S_{(3,1^3)} \boxtimes S_{(3^3,1)}) + 4 \cdot (S_{(3,1^3)} \boxtimes S_{(4,1^6)}) + 11 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2,1^4)}) + 11 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2^2,1^2)}) + 5 \cdot (S_{(3,1^3)} \boxtimes S_{(4,2^3)}) + 9 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,1^3)}) + 9 \cdot (S_{(3,1^3)} \boxtimes S_{(4,3,2,1)}) + (S_{(3,1^3)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(3,1^3)} \boxtimes S_{(5,2,1^3)}) + (S_{(3,1^3)} \boxtimes S_{(5,2^2,1)}) + 3 \cdot (S_{(3,1^3)} \boxtimes S_{(5,3,1^2)}) + (S_{(3,1^3)} \boxtimes S_{(5,4,1)}) + (S_{(3,2,1)} \boxtimes S_{(1^{10})}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(2,1^8)}) + 14 \cdot (S_{(3,2,1)} \boxtimes S_{(2^2,1^6)}) + 19 \cdot (S_{(3,2,1)} \boxtimes S_{(2^3,1^4)}) + 16 \cdot (S_{(3,2,1)} \boxtimes S_{(2^4,1^2)}) + 6 \cdot (S_{(3,2,1)} \boxtimes S_{(2^5)}) + 12 \cdot (S_{(3,2,1)} \boxtimes S_{(3,1^7)}) + 29 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2,1^5)}) + 35 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^2,1^3)}) + 24 \cdot (S_{(3,2,1)} \boxtimes S_{(3,2^3,1)}) + 20 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,1^4)}) + 25 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2,1^2)}) + 11 \cdot (S_{(3,2,1)} \boxtimes S_{(3^2,2^2)}) + 7 \cdot (S_{(3,2,1)} \boxtimes S_{(3^3,1)}) + 9 \cdot (S_{(3,2,1)} \boxtimes S_{(4,1^6)}) + 20 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2,1^4)}) + 21 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^2,1^2)}) + 9 \cdot (S_{(3,2,1)} \boxtimes S_{(4,2^3)}) + 15 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,1^3)}) + 14 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3,2,1)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(4,3^2)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(3,2,1)} \boxtimes S_{(5,2^2,1)}) + 3 \cdot (S_{(3,2,1)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(3,2,1)} \boxtimes S_{(5,3,2)}) + (S_{(3^2)} \boxtimes S_{(2,1^8)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(2^2,1^6)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(3^2)} \boxtimes S_{(2^5)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(3,1^7)}) + 9 \cdot (S_{(3^2)} \boxtimes S_{(3,2,1^5)}) + 9 \cdot (S_{(3^2)} \boxtimes S_{(3,2^2,1^3)}) + 7 \cdot (S_{(3^2)} \boxtimes S_{(3,2^3,1)}) + 8 \cdot (S_{(3^2)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(3^2,2^2)}) + (S_{(3^2)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(3^2)} \boxtimes S_{(4,1^6)}) + 7 \cdot (S_{(3^2)} \boxtimes S_{(4,2,1^4)}) + 8 \cdot (S_{(3^2)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(4,2^3)}) + 4 \cdot (S_{(3^2)} \boxtimes S_{(4,3,1^3)}) + 5 \cdot (S_{(3^2)} \boxtimes S_{(4,3,2,1)}) + (S_{(3^2)} \boxtimes S_{(4,3^2)}) + (S_{(3^2)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(5,2,1^3)}) + 2 \cdot (S_{(3^2)} \boxtimes S_{(5,2^2,1)}) + (S_{(3^2)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(2,1^8)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(2^2,1^6)}) + 8 \cdot (S_{(4,1^2)} \boxtimes S_{(2^3,1^4)}) + 8 \cdot (S_{(4,1^2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(2^5)}) + 8 \cdot (S_{(4,1^2)} \boxtimes S_{(3,1^7)}) + 16 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2,1^5)}) + 21 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 14 \cdot (S_{(4,1^2)} \boxtimes S_{(3,2^3,1)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,1^4)}) + \cdots$ | 4339438 |

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$(6,10)$	$\cdots + 14 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(3^2,2^2)}) + 5 \cdot (S_{(4,1^2)} \boxtimes S_{(3^3,1)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(4,1^6)}) + 15 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2,1^4)}) + 16 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 6 \cdot (S_{(4,1^2)} \boxtimes S_{(4,2^3)}) + 7 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3,1^3)}) + 9 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(4,3^2)}) + (S_{(4,1^2)} \boxtimes S_{(4^2,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(4,1^2)} \boxtimes S_{(5,2,1^3)}) + 3 \cdot (S_{(4,1^2)} \boxtimes S_{(5,2^2,1)}) + 2 \cdot (S_{(4,1^2)} \boxtimes S_{(5,3,1^2)}) + (S_{(4,1^2)} \boxtimes S_{(5,3,2)}) + (S_{(4,2)} \boxtimes S_{(2,1^8)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(2^2,1^6)}) + 6 \cdot (S_{(4,2)} \boxtimes S_{(2^3,1^4)}) + 5 \cdot (S_{(4,2)} \boxtimes S_{(2^4,1^2)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(2^5)}) + 6 \cdot (S_{(4,2)} \boxtimes S_{(3,1^7)}) + 14 \cdot (S_{(4,2)} \boxtimes S_{(3,2,1^5)}) + 17 \cdot (S_{(4,2)} \boxtimes S_{(3,2^2,1^3)}) + 12 \cdot (S_{(4,2)} \boxtimes S_{(3,2^3,1)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(3^2,1^4)}) + 12 \cdot (S_{(4,2)} \boxtimes S_{(3^2,2,1^2)}) + 5 \cdot (S_{(4,2)} \boxtimes S_{(3^2,2^2)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(3^3,1)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(4,1^6)}) + 16 \cdot (S_{(4,2)} \boxtimes S_{(4,2,1^4)}) + 14 \cdot (S_{(4,2)} \boxtimes S_{(4,2^2,1^2)}) + 7 \cdot (S_{(4,2)} \boxtimes S_{(4,2^3)}) + 7 \cdot (S_{(4,2)} \boxtimes S_{(4,3,1^3)}) + 8 \cdot (S_{(4,2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4,2)} \boxtimes S_{(4,3^2)}) + (S_{(4,2)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(4,2)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(4,2)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(4,2)} \boxtimes S_{(5,2^2,1)}) + (S_{(4,2)} \boxtimes S_{(5,3,1^2)}) + (S_{(4,2)} \boxtimes S_{(5,3,2)}) + (S_{(5,1)} \boxtimes S_{(2^2,1^6)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(2^3,1^4)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(3,1^7)}) + 6 \cdot (S_{(5,1)} \boxtimes S_{(3,2,1^5)}) + 8 \cdot (S_{(5,1)} \boxtimes S_{(3,2^2,1^3)}) + 6 \cdot (S_{(5,1)} \boxtimes S_{(3,2^3,1)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3^2,1^4)}) + 5 \cdot (S_{(5,1)} \boxtimes S_{(3^2,2,1^2)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(3^2,2^2)}) + 2 \cdot (S_{(5,1)} \boxtimes S_{(3^3,1)}) + 7 \cdot (S_{(5,1)} \boxtimes S_{(4,1^6)}) + 9 \cdot (S_{(5,1)} \boxtimes S_{(4,2,1^4)}) + 10 \cdot (S_{(5,1)} \boxtimes S_{(4,2^2,1^2)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(4,2^3)}) + 3 \cdot (S_{(5,1)} \boxtimes S_{(4,3,1^3)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(5,1)} \boxtimes S_{(4,3^2)}) + 5 \cdot (S_{(5,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(5,1)} \boxtimes S_{(5,2,1^3)}) + 3 \cdot (S_{(5,1)} \boxtimes S_{(5,2^2,1)}) + (S_{(5,1)} \boxtimes S_{(5,3,2)}) + (S_{(6)} \boxtimes S_{(3,2,1^5)}) + (S_{(6)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(6)} \boxtimes S_{(3,2^3,1)}) + (S_{(6)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(6)} \boxtimes S_{(3^2,2^2)}) + (S_{(6)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(6)} \boxtimes S_{(4,2,1^4)}) + 2 \cdot (S_{(6)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(6)} \boxtimes S_{(4,2^3)}) + (S_{(6)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(6)} \boxtimes S_{(5,1^5)}) + (S_{(6)} \boxtimes S_{(5,2,1^3)}) + (S_{(6)} \boxtimes S_{(5,2^2,1)})$	4339438
$(7,10)$	$(-1) \cdot (S_{(1^7)} \boxtimes S_{(1^{10})}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(2,1^8)}) + (-2) \cdot (S_{(1^7)} \boxtimes S_{(2^2,1^6)}) + (-2) \cdot (S_{(1^7)} \boxtimes S_{(2^3,1^4)}) + (-2) \cdot (S_{(1^7)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3^2,1^4)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3^2,2,1^2)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(3^2,2^2)}) + (-1) \cdot (S_{(1^7)} \boxtimes S_{(4^2,1^2)}) + (-2) \cdot (S_{(2,1^5)} \boxtimes S_{(1^{10})}) + (-4) \cdot (S_{(2,1^5)} \boxtimes S_{(2,1^8)}) + (-6) \cdot (S_{(2,1^5)} \boxtimes S_{(2^2,1^6)}) + (-7) \cdot (S_{(2,1^5)} \boxtimes S_{(2^3,1^4)}) + (-6) \cdot (S_{(2,1^5)} \boxtimes S_{(2^4,1^2)}) + (-3) \cdot (S_{(2,1^5)} \boxtimes S_{(2^5)}) + (-2) \cdot (S_{(2,1^5)} \boxtimes S_{(3,1^7)}) + (-5) \cdot (S_{(2,1^5)} \boxtimes S_{(3,2,1^5)}) + (-6) \cdot (S_{(2,1^5)} \boxtimes S_{(3,2^2,1^3)}) + (-5) \cdot (S_{(2,1^5)} \boxtimes S_{(3,2^3,1)}) + (-4) \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,1^4)}) + (-5) \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,2,1^2)}) + (-3) \cdot (S_{(2,1^5)} \boxtimes S_{(3^2,2^2)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(3^3,1)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(4,2,1^4)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(4,2^2,1^2)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(4,2^3)}) + (-2) \cdot (S_{(2,1^5)} \boxtimes S_{(4,3,1^3)}) + (-2) \cdot (S_{(2,1^5)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(4^2,1^2)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(2,1^5)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(1^{10})}) + (-4) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2,1^8)}) + (-8) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^2,1^6)}) + (-9) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^3,1^4)}) + (-9) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^4,1^2)}) + (-3) \cdot (S_{(2^2,1^3)} \boxtimes S_{(2^5)}) + (-4) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,1^7)}) + (-10) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2,1^5)}) + (-13) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (-10) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3,2^3,1)}) + (-8) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,1^4)}) + (-10) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (-6) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^2,2^2)}) + (-3) \cdot (S_{(2^2,1^3)} \boxtimes S_{(3^3,1)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,1^6)}) + (-3) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2,1^4)}) + (-5) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2^2,1^2)}) + (-2) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,2^3)}) + (-5) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,3,1^3)}) + (-6) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4,3^2)}) + (-3) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4^2,1^2)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,3,1^2)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,3,2)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(2^2,1^3)} \boxtimes S_{(5^2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(1^{10})}) + (-2) \cdot (S_{(2^3,1)} \boxtimes S_{(2,1^8)}) + (-5) \cdot (S_{(2^3,1)} \boxtimes S_{(2^2,1^6)}) + (-8) \cdot (S_{(2^3,1)} \boxtimes S_{(2^3,1^4)}) + (-6) \cdot (S_{(2^3,1)} \boxtimes S_{(2^4,1^2)}) + (-2) \cdot (S_{(2^3,1)} \boxtimes S_{(2^5)}) + (-2) \cdot (S_{(2^3,1)} \boxtimes S_{(3,1^7)}) + (-8) \cdot (S_{(2^3,1)} \boxtimes S_{(3,2,1^5)}) + (-11) \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^2,1^3)}) + (-8) \cdot (S_{(2^3,1)} \boxtimes S_{(3,2^3,1)}) + (-8) \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,1^4)}) + (-11) \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,2,1^2)}) + (-5) \cdot (S_{(2^3,1)} \boxtimes S_{(3^2,2^2)}) + (-3) \cdot (S_{(2^3,1)} \boxtimes S_{(3^3,1)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(4,1^6)}) + (-4) \cdot (S_{(2^3,1)} \boxtimes S_{(4,2,1^4)}) + (-5) \cdot (S_{(2^3,1)} \boxtimes S_{(4,2^2,1^2)}) + \cdots$	

| $(7,10)$ | $\cdots + (-3) \cdot (S_{(2^3,1)} \boxtimes S_{(4,2^3)}) + (-6) \cdot (S_{(2^3,1)} \boxtimes S_{(4,3,1^3)}) + (-6) \cdot (S_{(2^3,1)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(4,3^2)}) + (-3) \cdot (S_{(2^3,1)} \boxtimes S_{(4^2,1^2)}) + (-2) \cdot (S_{(2^3,1)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(5,2^2,1)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(5,3,1^2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(5,3,2)}) + (-1) \cdot (S_{(2^3,1)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(1^{10})}) + (-4) \cdot (S_{(3,1^4)} \boxtimes S_{(2,1^8)}) + (-6) \cdot (S_{(3,1^4)} \boxtimes S_{(2^2,1^6)}) + (-9) \cdot (S_{(3,1^4)} \boxtimes S_{(2^3,1^4)}) + (-7) \cdot (S_{(3,1^4)} \boxtimes S_{(2^4,1^2)}) + (-4) \cdot (S_{(3,1^4)} \boxtimes S_{(2^5)}) + (-5) \cdot (S_{(3,1^4)} \boxtimes S_{(3,1^7)}) + (-10) \cdot (S_{(3,1^4)} \boxtimes S_{(3,2,1^5)}) + (-13) \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^2,1^3)}) + (-10) \cdot (S_{(3,1^4)} \boxtimes S_{(3,2^3,1)}) + (-5) \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,1^4)}) + (-10) \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,2,1^2)}) + (-4) \cdot (S_{(3,1^4)} \boxtimes S_{(3^2,2^2)}) + (-4) \cdot (S_{(3,1^4)} \boxtimes S_{(3^3,1)}) + (-2) \cdot (S_{(3,1^4)} \boxtimes S_{(4,1^6)}) + (-6) \cdot (S_{(3,1^4)} \boxtimes S_{(4,2,1^4)}) + (-6) \cdot (S_{(3,1^4)} \boxtimes S_{(4,2^2,1^2)}) + (-4) \cdot (S_{(3,1^4)} \boxtimes S_{(4,2^3)}) + (-5) \cdot (S_{(3,1^4)} \boxtimes S_{(4,3,1^3)}) + (-6) \cdot (S_{(3,1^4)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(4,3^2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(4^2,1^2)}) + (-2) \cdot (S_{(3,1^4)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(5,2,1^3)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(5,2^2,1)}) + (-2) \cdot (S_{(3,1^4)} \boxtimes S_{(5,3,1^2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(5,3,2)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(3,1^4)} \boxtimes S_{(6,4)}) + (-3) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2,1^8)}) + (-8) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^2,1^6)}) + (-11) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^3,1^4)}) + (-11) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^4,1^2)}) + (-4) \cdot (S_{(3,2,1^2)} \boxtimes S_{(2^5)}) + (-7) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,1^7)}) + (-18) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2,1^5)}) + (-25) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + (-18) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3,2^3,1)}) + (-14) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,1^4)}) + (-21) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + (-10) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^2,2^2)}) + (-7) \cdot (S_{(3,2,1^2)} \boxtimes S_{(3^3,1)}) + (-5) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,1^6)}) + (-14) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2,1^4)}) + (-18) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + (-7) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,2^3)}) + (-13) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3,1^3)}) + (-16) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3,2,1)}) + (-4) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4,3^2)}) + (-5) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4^2,1^2)}) + (-3) \cdot (S_{(3,2,1^2)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,1^5)}) + (-4) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,2,1^3)}) + (-4) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,2^2,1)}) + (-5) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,3,1^2)}) + (-3) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,3,2)}) + (-2) \cdot (S_{(3,2,1^2)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(3,2,1^2)} \boxtimes S_{(6,3,1)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(2,1^8)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(2^2,1^6)}) + (-6) \cdot (S_{(3,2^2)} \boxtimes S_{(2^3,1^4)}) + (-4) \cdot (S_{(3,2^2)} \boxtimes S_{(2^4,1^2)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(2^5)}) + (-2) \cdot (S_{(3,2^2)} \boxtimes S_{(3,1^7)}) + (-9) \cdot (S_{(3,2^2)} \boxtimes S_{(3,2,1^5)}) + (-13) \cdot (S_{(3,2^2)} \boxtimes S_{(3,2^2,1^3)}) + (-9) \cdot (S_{(3,2^2)} \boxtimes S_{(3,2^3,1)}) + (-9) \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,1^4)}) + (-13) \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2,1^2)}) + (-5) \cdot (S_{(3,2^2)} \boxtimes S_{(3^2,2^2)}) + (-4) \cdot (S_{(3,2^2)} \boxtimes S_{(3^3,1)}) + (-2) \cdot (S_{(3,2^2)} \boxtimes S_{(4,1^6)}) + (-9) \cdot (S_{(3,2^2)} \boxtimes S_{(4,2,1^4)}) + (-9) \cdot (S_{(3,2^2)} \boxtimes S_{(4,2^2,1^2)}) + (-6) \cdot (S_{(3,2^2)} \boxtimes S_{(4,2^3)}) + (-10) \cdot (S_{(3,2^2)} \boxtimes S_{(4,3,1^3)}) + (-10) \cdot (S_{(3,2^2)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(4,3^2)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(4^2,1^2)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(5,1^5)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(5,2,1^3)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(5,2^2,1)}) + (-3) \cdot (S_{(3,2^2)} \boxtimes S_{(5,3,1^2)}) + (-2) \cdot (S_{(3,2^2)} \boxtimes S_{(5,3,2)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(3,2^2)} \boxtimes S_{(6,2^2)}) + (-2) \cdot (S_{(3^2,1)} \boxtimes S_{(2^2,1^6)}) + (-3) \cdot (S_{(3^2,1)} \boxtimes S_{(2^3,1^4)}) + (-4) \cdot (S_{(3^2,1)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(2^5)}) + (-2) \cdot (S_{(3^2,1)} \boxtimes S_{(3,1^7)}) + (-8) \cdot (S_{(3^2,1)} \boxtimes S_{(3,2,1^5)}) + (-11) \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^2,1^3)}) + (-8) \cdot (S_{(3^2,1)} \boxtimes S_{(3,2^3,1)}) + (-9) \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,1^4)}) + (-10) \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,2,1^2)}) + (-6) \cdot (S_{(3^2,1)} \boxtimes S_{(3^2,2^2)}) + (-3) \cdot (S_{(3^2,1)} \boxtimes S_{(3^3,1)}) + (-3) \cdot (S_{(3^2,1)} \boxtimes S_{(4,1^6)}) + (-9) \cdot (S_{(3^2,1)} \boxtimes S_{(4,2,1^4)}) + (-12) \cdot (S_{(3^2,1)} \boxtimes S_{(4,2^2,1^2)}) + (-4) \cdot (S_{(3^2,1)} \boxtimes S_{(4,2^3)}) + (-10) \cdot (S_{(3^2,1)} \boxtimes S_{(4,3,1^3)}) + (-10) \cdot (S_{(3^2,1)} \boxtimes S_{(4,3,2,1)}) + (-2) \cdot (S_{(3^2,1)} \boxtimes S_{(4,3^2)}) + (-4) \cdot (S_{(3^2,1)} \boxtimes S_{(4^2,1^2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(4^2,2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(5,1^5)}) + (-4) \cdot (S_{(3^2,1)} \boxtimes S_{(5,2,1^3)}) + (-4) \cdot (S_{(3^2,1)} \boxtimes S_{(5,2^2,1)}) + (-3) \cdot (S_{(3^2,1)} \boxtimes S_{(5,3,1^2)}) + (-3) \cdot (S_{(3^2,1)} \boxtimes S_{(5,3,2)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(5,4,1)}) + (-1) \cdot (S_{(3^2,1)} \boxtimes S_{(6,2,1^2)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(2,1^8)}) + (-2) \cdot (S_{(4,1^3)} \boxtimes S_{(2^2,1^6)}) + (-4) \cdot (S_{(4,1^3)} \boxtimes S_{(2^3,1^4)}) + (-4) \cdot (S_{(4,1^3)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(4,1^3)} \boxtimes S_{(2^5)}) + (-5) \cdot (S_{(4,1^3)} \boxtimes S_{(3,1^7)}) + (-8) \cdot (S_{(4,1^3)} \boxtimes S_{(3,2,1^5)}) + (-13) \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (-9) \cdot (S_{(4,1^3)} \boxtimes S_{(3,2^3,1)}) + (-4) \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,1^4)}) + (-9) \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (-4) \cdot (S_{(4,1^3)} \boxtimes S_{(3^2,2^2)}) + (-5) \cdot (S_{(4,1^3)} \boxtimes S_{(3^3,1)}) + (-6) \cdot (S_{(4,1^3)} \boxtimes S_{(4,1^6)}) + (-10) \cdot (S_{(4,1^3)} \boxtimes S_{(4,2,1^4)}) + (-13) \cdot (S_{(4,1^3)} \boxtimes S_{(4,2^2,1^2)}) + (-5) \cdot (S_{(4,1^3)} \boxtimes S_{(4,2^3)}) + (-6) \cdot (S_{(4,1^3)} \boxtimes S_{(4,3,1^3)}) + (-8) \cdot (S_{(4,1^3)} \boxtimes S_{(4,3,2,1)}) + (-3) \cdot (S_{(4,1^3)} \boxtimes S_{(4,3^2)}) + \cdots$ | -12096001 |

| $(7,10)$ | $\cdots +(-1)\cdot(S_{(4,1^3)}\boxtimes S_{(4^2,1^2)})+(-1)\cdot(S_{(4,1^3)}\boxtimes S_{(4^2,2)})+(-2)\cdot(S_{(4,1^3)}\boxtimes S_{(5,1^5)})+$ $(-5)\cdot(S_{(4,1^3)}\boxtimes S_{(5,2,1^3)})+(-4)\cdot(S_{(4,1^3)}\boxtimes S_{(5,2^2,1)})+(-4)\cdot(S_{(4,1^3)}\boxtimes S_{(5,3,1^2)})+$ $(-2)\cdot(S_{(4,1^3)}\boxtimes S_{(5,3,2)})+(-1)\cdot(S_{(4,1^3)}\boxtimes S_{(5,4,1)})+(-1)\cdot(S_{(4,1^3)}\boxtimes S_{(6,2,1^2)})+$ $(-1)\cdot(S_{(4,1^3)}\boxtimes S_{(6,3,1)})+(-2)\cdot(S_{(4,2,1)}\boxtimes S_{(2^2,1^6)})+(-4)\cdot(S_{(4,2,1)}\boxtimes S_{(2^3,1^4)})+$ $(-4)\cdot(S_{(4,2,1)}\boxtimes S_{(2^4,1^2)})+(-2)\cdot(S_{(4,2,1)}\boxtimes S_{(2^5)})+(-3)\cdot(S_{(4,2,1)}\boxtimes S_{(3,1^7)})+(-11)\cdot$ $(S_{(4,2,1)}\boxtimes S_{(3,2,1^5)})+(-16)\cdot(S_{(4,2,1)}\boxtimes S_{(3,2^2,1^3)})+(-12)\cdot(S_{(4,2,1)}\boxtimes S_{(3,2^3,1)})+$ $(-10)\cdot(S_{(4,2,1)}\boxtimes S_{(3^2,1^4)})+(-16)\cdot(S_{(4,2,1)}\boxtimes S_{(3^2,2,1^2)})+(-7)\cdot(S_{(4,2,1)}\boxtimes S_{(3^2,2^2)})+$ $(-5)\cdot(S_{(4,2,1)}\boxtimes S_{(3^3,1)})+(-7)\cdot(S_{(4,2,1)}\boxtimes S_{(4,1^6)})+(-18)\cdot(S_{(4,2,1)}\boxtimes S_{(4,2,1^4)})+$ $(-20)\cdot(S_{(4,2,1)}\boxtimes S_{(4,2^2,1^2)})+(-9)\cdot(S_{(4,2,1)}\boxtimes S_{(4,2^3)})+(-14)\cdot(S_{(4,2,1)}\boxtimes S_{(4,3,1^3)})+$ $(-16)\cdot(S_{(4,2,1)}\boxtimes S_{(4,3,2,1)})+(-3)\cdot(S_{(4,2,1)}\boxtimes S_{(4,3^2)})+(-3)\cdot(S_{(4,2,1)}\boxtimes S_{(4^2,1^2)})+$ $(-3)\cdot(S_{(4,2,1)}\boxtimes S_{(4^2,2)})+(-5)\cdot(S_{(4,2,1)}\boxtimes S_{(5,1^5)})+(-11)\cdot(S_{(4,2,1)}\boxtimes S_{(5,2,1^3)})+$ $(-9)\cdot(S_{(4,2,1)}\boxtimes S_{(5,2^2,1)})+(-7)\cdot(S_{(4,2,1)}\boxtimes S_{(5,3,1^2)})+(-4)\cdot(S_{(4,2,1)}\boxtimes S_{(5,3,2)})+$ $(-1)\cdot(S_{(4,2,1)}\boxtimes S_{(5,4,1)})+(-1)\cdot(S_{(4,2,1)}\boxtimes S_{(6,1^4)})+(-2)\cdot(S_{(4,2,1)}\boxtimes S_{(6,2,1^2)})+$ $(-1)\cdot(S_{(4,2,1)}\boxtimes S_{(6,2^2)})+(-1)\cdot(S_{(4,2,1)}\boxtimes S_{(6,3,1)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(2^3,1^4)})+$ $(-1)\cdot(S_{(4,3)}\boxtimes S_{(2^4,1^2)})+(-3)\cdot(S_{(4,3)}\boxtimes S_{(3,2,1^5)})+(-4)\cdot(S_{(4,3)}\boxtimes S_{(3,2^2,1^3)})+$ $(-4)\cdot(S_{(4,3)}\boxtimes S_{(3,2^3,1)})+(-5)\cdot(S_{(4,3)}\boxtimes S_{(3^2,1^4)})+(-5)\cdot(S_{(4,3)}\boxtimes S_{(3^2,2,1^2)})+$ $(-3)\cdot(S_{(4,3)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(3^3,1)})+(-2)\cdot(S_{(4,3)}\boxtimes S_{(4,1^6)})+(-7)\cdot$ $(S_{(4,3)}\boxtimes S_{(4,2,1^4)})+(-7)\cdot(S_{(4,3)}\boxtimes S_{(4,2^2,1^2)})+(-4)\cdot(S_{(4,3)}\boxtimes S_{(4,2^3)})+(-8)\cdot$ $(S_{(4,3)}\boxtimes S_{(4,3,1^3)})+(-6)\cdot(S_{(4,3)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(4,3^2)})+(-2)\cdot$ $(S_{(4,3)}\boxtimes S_{(4^2,1^2)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(4^2,2)})+(-3)\cdot(S_{(4,3)}\boxtimes S_{(5,1^5)})+(-5)\cdot(S_{(4,3)}\boxtimes$ $S_{(5,2,1^3)})+(-5)\cdot(S_{(4,3)}\boxtimes S_{(5,2^2,1)})+(-3)\cdot(S_{(4,3)}\boxtimes S_{(5,3,1^2)})+(-2)\cdot(S_{(4,3)}\boxtimes$ $S_{(5,3,2)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(6,1^4)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(6,2,1^2)})+(-1)\cdot(S_{(4,3)}\boxtimes S_{(6,2^2)})+$ $(-1)\cdot(S_{(5,1^2)}\boxtimes S_{(2^4,1^2)})+(-1)\cdot(S_{(5,1^2)}\boxtimes S_{(3,1^7)})+(-3)\cdot(S_{(5,1^2)}\boxtimes S_{(3,2,1^5)})+$ $(-5)\cdot(S_{(5,1^2)}\boxtimes S_{(3,2^2,1^3)})+(-4)\cdot(S_{(5,1^2)}\boxtimes S_{(3,2^3,1)})+(-2)\cdot(S_{(5,1^2)}\boxtimes S_{(3^2,1^4)})+$ $(-4)\cdot(S_{(5,1^2)}\boxtimes S_{(3^2,2,1^2)})+(-3)\cdot(S_{(5,1^2)}\boxtimes S_{(3^2,2^2)})+(-2)\cdot(S_{(5,1^2)}\boxtimes S_{(3^3,1)})+$ $(-5)\cdot(S_{(5,1^2)}\boxtimes S_{(4,1^6)})+(-8)\cdot(S_{(5,1^2)}\boxtimes S_{(4,2,1^4)})+(-11)\cdot(S_{(5,1^2)}\boxtimes S_{(4,2^2,1^2)})+$ $(-3)\cdot(S_{(5,1^2)}\boxtimes S_{(4,2^3)})+(-4)\cdot(S_{(5,1^2)}\boxtimes S_{(4,3,1^3)})+(-6)\cdot(S_{(5,1^2)}\boxtimes S_{(4,3,2,1)})+$ $(-2)\cdot(S_{(5,1^2)}\boxtimes S_{(4,3^2)})+(-1)\cdot(S_{(5,1^2)}\boxtimes S_{(4^2,1^2)})+(-5)\cdot(S_{(5,1^2)}\boxtimes S_{(5,1^5)})+$ $(-8)\cdot(S_{(5,1^2)}\boxtimes S_{(5,2,1^3)})+(-6)\cdot(S_{(5,1^2)}\boxtimes S_{(5,2^2,1)})+(-3)\cdot(S_{(5,1^2)}\boxtimes S_{(5,3,1^2)})+$ $(-2)\cdot(S_{(5,1^2)}\boxtimes S_{(5,3,2)})+(-1)\cdot(S_{(5,1^2)}\boxtimes S_{(6,1^4)})+(-3)\cdot(S_{(5,1^2)}\boxtimes S_{(6,2,1^2)})+$ $(-1)\cdot(S_{(5,1^2)}\boxtimes S_{(6,3,1)})+(-1)\cdot(S_{(5,2)}\boxtimes S_{(2^5)})+(-2)\cdot(S_{(5,2)}\boxtimes S_{(3,2,1^5)})+(-3)\cdot$ $(S_{(5,2)}\boxtimes S_{(3,2^2,1^3)})+(-3)\cdot(S_{(5,2)}\boxtimes S_{(3,2^3,1)})+(-3)\cdot(S_{(5,2)}\boxtimes S_{(3^2,1^4)})+(-4)\cdot$ $(S_{(5,2)}\boxtimes S_{(3^2,2,1^2)})+(-2)\cdot(S_{(5,2)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(5,2)}\boxtimes S_{(3^3,1)})+(-2)\cdot$ $(S_{(5,2)}\boxtimes S_{(4,1^6)})+(-8)\cdot(S_{(5,2)}\boxtimes S_{(4,2,1^4)})+(-7)\cdot(S_{(5,2)}\boxtimes S_{(4,2^2,1^2)})+(-5)\cdot$ $(S_{(5,2)}\boxtimes S_{(4,2^3)})+(-6)\cdot(S_{(5,2)}\boxtimes S_{(4,3,1^3)})+(-6)\cdot(S_{(5,2)}\boxtimes S_{(4,3,2,1)})+(-1)\cdot$ $(S_{(5,2)}\boxtimes S_{(4^2,1^2)})+(-1)\cdot(S_{(5,2)}\boxtimes S_{(4^2,2)})+(-5)\cdot(S_{(5,2)}\boxtimes S_{(5,1^5)})+(-8)\cdot(S_{(5,2)}\boxtimes$ $S_{(5,2,1^3)})+(-6)\cdot(S_{(5,2)}\boxtimes S_{(5,2^2,1)})+(-3)\cdot(S_{(5,2)}\boxtimes S_{(5,3,1^2)})+(-2)\cdot(S_{(5,2)}\boxtimes$ $S_{(5,3,2)})+(-3)\cdot(S_{(5,2)}\boxtimes S_{(6,1^4)})+(-2)\cdot(S_{(5,2)}\boxtimes S_{(6,2,1^2)})+(-2)\cdot(S_{(5,2)}\boxtimes S_{(6,2^2)})+$ $(-1)\cdot(S_{(6,1)}\boxtimes S_{(3,2^3,1)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(3^2,1^4)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(3^2,2,1^2)})+$ $(-1)\cdot(S_{(6,1)}\boxtimes S_{(3^2,2^2)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(4,1^6)})+(-3)\cdot(S_{(6,1)}\boxtimes S_{(4,2,1^4)})+$ $(-3)\cdot(S_{(6,1)}\boxtimes S_{(4,2^2,1^2)})+(-2)\cdot(S_{(6,1)}\boxtimes S_{(4,2^3)})+(-2)\cdot(S_{(6,1)}\boxtimes S_{(4,3,1^3)})+$ $(-2)\cdot(S_{(6,1)}\boxtimes S_{(4,3,2,1)})+(-4)\cdot(S_{(6,1)}\boxtimes S_{(5,1^5)})+(-5)\cdot(S_{(6,1)}\boxtimes S_{(5,2,1^3)})+$ $(-4)\cdot(S_{(6,1)}\boxtimes S_{(5,2^2,1)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(5,3,1^2)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(5,3,2)})+$ $(-3)\cdot(S_{(6,1)}\boxtimes S_{(6,1^4)})+(-2)\cdot(S_{(6,1)}\boxtimes S_{(6,2,1^2)})+(-1)\cdot(S_{(6,1)}\boxtimes S_{(6,2^2)})+(-1)\cdot$ $(S_{(7)}\boxtimes S_{(4,2^3)})+(-1)\cdot(S_{(7)}\boxtimes S_{(4,3,1^3)})+(-1)\cdot(S_{(7)}\boxtimes S_{(5,1^5)})+(-1)\cdot(S_{(7)}\boxtimes$ $S_{(5,2,1^3)})+(-1)\cdot(S_{(7)}\boxtimes S_{(5,2^2,1)})+(-2)\cdot(S_{(7)}\boxtimes S_{(6,1^4)})+(-1)\cdot(S_{(7)}\boxtimes S_{(6,2^2)})$ | -12096001 |

| $(8,10)$ | $(S_{(1^8)}\boxtimes S_{(2,1^8)})+(S_{(1^8)}\boxtimes S_{(2^2,1^6)})+(S_{(1^8)}\boxtimes S_{(2^3,1^4)})+(S_{(1^8)}\boxtimes S_{(2^4,1^2)})+(S_{(1^8)}\boxtimes S_{(3^2,1^4)})+(S_{(2,1^6)}\boxtimes S_{(1^{10})})+2\cdot(S_{(2,1^6)}\boxtimes S_{(2,1^8)})+3\cdot(S_{(2,1^6)}\boxtimes S_{(2^2,1^6)})+3\cdot(S_{(2,1^6)}\boxtimes S_{(2^3,1^4)})+2\cdot(S_{(2,1^6)}\boxtimes S_{(2^4,1^2)})+(S_{(2,1^6)}\boxtimes S_{(2^5)})+(S_{(2,1^6)}\boxtimes S_{(3,1^7)})+2\cdot(S_{(2,1^6)}\boxtimes S_{(3,2,1^5)})+2\cdot(S_{(2,1^6)}\boxtimes S_{(3,2^2,1^3)})+(S_{(2,1^6)}\boxtimes S_{(3,2^3,1)})+(S_{(2,1^6)}\boxtimes S_{(3^2,1^4)})+(S_{(2,1^6)}\boxtimes S_{(3^2,2,1^2)})+(S_{(2,1^6)}\boxtimes S_{(4,3,1^3)})+(S_{(2^2,1^4)}\boxtimes S_{(1^{10})})+2\cdot(S_{(2^2,1^4)}\boxtimes S_{(2,1^8)})+4\cdot(S_{(2^2,1^4)}\boxtimes S_{(2^2,1^6)})+4\cdot(S_{(2^2,1^4)}\boxtimes S_{(2^3,1^4)})+4\cdot(S_{(2^2,1^4)}\boxtimes S_{(2^4,1^2)})+(S_{(2^2,1^4)}\boxtimes S_{(2^5)})+(S_{(2^2,1^4)}\boxtimes S_{(3,1^7)})+4\cdot(S_{(2^2,1^4)}\boxtimes S_{(3,2,1^5)})+4\cdot(S_{(2^2,1^4)}\boxtimes S_{(3,2^2,1^3)})+3\cdot(S_{(2^2,1^4)}\boxtimes S_{(3,2^3,1)})+3\cdot(S_{(2^2,1^4)}\boxtimes S_{(3^2,1^4)})+3\cdot(S_{(2^2,1^4)}\boxtimes S_{(3^2,2,1^2)})+2\cdot(S_{(2^2,1^4)}\boxtimes S_{(3^2,2^2)})+(S_{(2^2,1^4)}\boxtimes S_{(4,2,1^4)})+(S_{(2^2,1^4)}\boxtimes S_{(4,2^2,1^2)})+(S_{(2^2,1^4)}\boxtimes S_{(4,3,1^3)})+(S_{(2^2,1^4)}\boxtimes S_{(4,3,2,1)})+(S_{(2^2,1^4)}\boxtimes S_{(4^2,1^2)})+(S_{(2^3,1^2)}\boxtimes S_{(2,1^8)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(2^2,1^6)})+4\cdot(S_{(2^3,1^2)}\boxtimes S_{(2^3,1^4)})+3\cdot(S_{(2^3,1^2)}\boxtimes S_{(2^4,1^2)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(2^5)})+(S_{(2^3,1^2)}\boxtimes S_{(3,1^7)})+3\cdot(S_{(2^3,1^2)}\boxtimes S_{(3,2,1^5)})+5\cdot(S_{(2^3,1^2)}\boxtimes S_{(3,2^2,1^3)})+4\cdot(S_{(2^3,1^2)}\boxtimes S_{(3,2^3,1)})+3\cdot(S_{(2^3,1^2)}\boxtimes S_{(3^2,1^4)})+5\cdot(S_{(2^3,1^2)}\boxtimes S_{(3^2,2,1^2)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(3^2,2^2)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(3^3,1)})+(S_{(2^3,1^2)}\boxtimes S_{(4,2,1^4)})+(S_{(2^3,1^2)}\boxtimes S_{(4,2^2,1^2)})+(S_{(2^3,1^2)}\boxtimes S_{(4,2^3)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(4,3,1^3)})+2\cdot(S_{(2^3,1^2)}\boxtimes S_{(4,3,2,1)})+(S_{(2^3,1^2)}\boxtimes S_{(4^2,1^2)})+(S_{(2^3,1^2)}\boxtimes S_{(4^2,2)})+(S_{(2^4)}\boxtimes S_{(2^2,1^6)})+(S_{(2^4)}\boxtimes S_{(2^3,1^4)})+2\cdot(S_{(2^4)}\boxtimes S_{(2^4,1^2)})+(S_{(2^4)}\boxtimes S_{(3,2,1^5)})+2\cdot(S_{(2^4)}\boxtimes S_{(3,2^2,1^3)})+2\cdot(S_{(2^4)}\boxtimes S_{(3,2^3,1)})+2\cdot(S_{(2^4)}\boxtimes S_{(3^2,1^4)})+2\cdot(S_{(2^4)}\boxtimes S_{(3^2,2,1^2)})+2\cdot(S_{(2^4)}\boxtimes S_{(3^2,2^2)})+(S_{(2^4)}\boxtimes S_{(3^3,1)})+(S_{(2^4)}\boxtimes S_{(4,2^2,1^2)})+(S_{(2^4)}\boxtimes S_{(4,3,1^3)})+(S_{(2^4)}\boxtimes S_{(4,3,2,1)})+(S_{(2^4)}\boxtimes S_{(4,3^2)})+(S_{(2^4)}\boxtimes S_{(4^2,1^2)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(2,1^8)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(2^2,1^6)})+3\cdot(S_{(3,1^5)}\boxtimes S_{(2^3,1^4)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(2^4,1^2)})+(S_{(3,1^5)}\boxtimes S_{(2^5)})+3\cdot(S_{(3,1^5)}\boxtimes S_{(3,1^7)})+4\cdot(S_{(3,1^5)}\boxtimes S_{(3,2,1^5)})+5\cdot(S_{(3,1^5)}\boxtimes S_{(3,2^2,1^3)})+3\cdot(S_{(3,1^5)}\boxtimes S_{(3,2^3,1)})+(S_{(3,1^5)}\boxtimes S_{(3^2,1^4)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(3^2,2,1^2)})+(S_{(3,1^5)}\boxtimes S_{(3^3,1)})+(S_{(3,1^5)}\boxtimes S_{(4,1^6)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(4,2,1^4)})+2\cdot(S_{(3,1^5)}\boxtimes S_{(4,2^2,1^2)})+(S_{(3,1^5)}\boxtimes S_{(4,2^3)})+(S_{(3,1^5)}\boxtimes S_{(4,3,1^3)})+(S_{(3,1^5)}\boxtimes S_{(4,3,2,1)})+(S_{(3,1^5)}\boxtimes S_{(5,3,1^2)})+(S_{(3,2,1^3)}\boxtimes S_{(2,1^8)})+3\cdot(S_{(3,2,1^3)}\boxtimes S_{(2^2,1^6)})+4\cdot(S_{(3,2,1^3)}\boxtimes S_{(2^3,1^4)})+4\cdot(S_{(3,2,1^3)}\boxtimes S_{(2^4,1^2)})+2\cdot(S_{(3,2,1^3)}\boxtimes S_{(2^5)})+3\cdot(S_{(3,2,1^3)}\boxtimes S_{(3,1^7)})+7\cdot(S_{(3,2,1^3)}\boxtimes S_{(3,2,1^5)})+9\cdot(S_{(3,2,1^3)}\boxtimes S_{(3,2^2,1^3)})+7\cdot(S_{(3,2,1^3)}\boxtimes S_{(3,2^3,1)})+5\cdot(S_{(3,2,1^3)}\boxtimes S_{(3^2,1^4)})+7\cdot(S_{(3,2,1^3)}\boxtimes S_{(3^2,2,1^2)})+4\cdot(S_{(3,2,1^3)}\boxtimes S_{(3^2,2^2)})+2\cdot(S_{(3,2,1^3)}\boxtimes S_{(3^3,1)})+2\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,1^6)})+5\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,2,1^4)})+6\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,2^2,1^2)})+3\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,2^3)})+4\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,3,1^3)})+5\cdot(S_{(3,2,1^3)}\boxtimes S_{(4,3,2,1)})+(S_{(3,2,1^3)}\boxtimes S_{(4,3^2)})+(S_{(3,2,1^3)}\boxtimes S_{(4^2,1^2)})+(S_{(3,2,1^3)}\boxtimes S_{(4^2,2)})+(S_{(3,2,1^3)}\boxtimes S_{(5,2,1^3)})+(S_{(3,2,1^3)}\boxtimes S_{(5,2^2,1)})+(S_{(3,2,1^3)}\boxtimes S_{(5,3,1^2)})+(S_{(3,2,1^3)}\boxtimes S_{(5,3,2)})+(S_{(3,2,1^3)}\boxtimes S_{(5,4,1)})+(S_{(3,2^2,1)}\boxtimes S_{(2^2,1^6)})+3\cdot(S_{(3,2^2,1)}\boxtimes S_{(2^3,1^4)})+3\cdot(S_{(3,2^2,1)}\boxtimes S_{(2^4,1^2)})+(S_{(3,2^2,1)}\boxtimes S_{(2^5)})+(S_{(3,2^2,1)}\boxtimes S_{(3,1^7)})+4\cdot(S_{(3,2^2,1)}\boxtimes S_{(3,2,1^5)})+8\cdot(S_{(3,2^2,1)}\boxtimes S_{(3,2^2,1^3)})+6\cdot(S_{(3,2^2,1)}\boxtimes S_{(3,2^3,1)})+4\cdot(S_{(3,2^2,1)}\boxtimes S_{(3^2,1^4)})+9\cdot(S_{(3,2^2,1)}\boxtimes S_{(3^2,2,1^2)})+4\cdot(S_{(3,2^2,1)}\boxtimes S_{(3^2,2^2)})+4\cdot(S_{(3,2^2,1)}\boxtimes S_{(3^3,1)})+(S_{(3,2^2,1)}\boxtimes S_{(4,1^6)})+4\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,2,1^4)})+6\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,2^2,1^2)})+3\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,2^3)})+5\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,3,1^3)})+7\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,3,2,1)})+2\cdot(S_{(3,2^2,1)}\boxtimes S_{(4,3^2)})+2\cdot(S_{(3,2^2,1)}\boxtimes S_{(4^2,1^2)})+2\cdot(S_{(3,2^2,1)}\boxtimes S_{(4^2,2)})+(S_{(3,2^2,1)}\boxtimes S_{(5,2,1^3)})+(S_{(3,2^2,1)}\boxtimes S_{(5,2^2,1)})+2\cdot(S_{(3,2^2,1)}\boxtimes S_{(5,3,1^2)})+(S_{(3,2^2,1)}\boxtimes S_{(5,3,2)})+(S_{(3,2^2,1)}\boxtimes S_{(5,4,1)})+(S_{(3^2,1^2)}\boxtimes S_{(2^2,1^6)})+(S_{(3^2,1^2)}\boxtimes S_{(2^3,1^4)})+2\cdot(S_{(3^2,1^2)}\boxtimes S_{(2^4,1^2)})+3\cdot(S_{(3^2,1^2)}\boxtimes S_{(3,2,1^5)})+4\cdot(S_{(3^2,1^2)}\boxtimes S_{(3,2^2,1^3)})+4\cdot(S_{(3^2,1^2)}\boxtimes S_{(3,2^3,1)})+5\cdot(S_{(3^2,1^2)}\boxtimes S_{(3^2,1^4)})+5\cdot(S_{(3^2,1^2)}\boxtimes S_{(3^2,2,1^2)})+4\cdot(S_{(3^2,1^2)}\boxtimes S_{(3^2,2^2)})+(S_{(3^2,1^2)}\boxtimes S_{(3^3,1)})+(S_{(3^2,1^2)}\boxtimes S_{(4,1^6)})+3\cdot(S_{(3^2,1^2)}\boxtimes S_{(4,2,1^4)})+5\cdot(S_{(3^2,1^2)}\boxtimes S_{(4,2^2,1^2)})+2\cdot(S_{(3^2,1^2)}\boxtimes S_{(4,2^3)})+5\cdot(S_{(3^2,1^2)}\boxtimes S_{(4,3,1^3)})+6\cdot(S_{(3^2,1^2)}\boxtimes S_{(4,3,2,1)})+(S_{(3^2,1^2)}\boxtimes S_{(4,3^2)})+3\cdot(S_{(3^2,1^2)}\boxtimes S_{(4^2,1^2)})+(S_{(3^2,1^2)}\boxtimes S_{(4^2,2)})+(S_{(3^2,1^2)}\boxtimes S_{(5,1^5)})+(S_{(3^2,1^2)}\boxtimes S_{(5,2,1^3)})+2\cdot(S_{(3^2,1^2)}\boxtimes S_{(5,2^2,1)})+(S_{(3^2,1^2)}\boxtimes S_{(5,3,1^2)})+2\cdot(S_{(3^2,1^2)}\boxtimes S_{(5,3,2)})+(S_{(3^2,1^2)}\boxtimes S_{(5,4,1)})+(S_{(3^2,1^2)}\boxtimes S_{(5^2)})+(S_{(3^2,2)}\boxtimes S_{(2^3,1^4)})+(S_{(3^2,2)}\boxtimes S_{(2^5)})+(S_{(3^2,2)}\boxtimes S_{(3,2,1^5)})+3\cdot(S_{(3^2,2)}\boxtimes S_{(3,2^2,1^3)})+2\cdot(S_{(3^2,2)}\boxtimes S_{(3,2^3,1)})+2\cdot(S_{(3^2,2)}\boxtimes S_{(3^2,1^4)})+5\cdot(S_{(3^2,2)}\boxtimes S_{(3^2,2,1^2)})+(S_{(3^2,2)}\boxtimes S_{(3^2,2^2)})+2\cdot(S_{(3^2,2)}\boxtimes S_{(3^3,1)})+\cdots$ | 17539198 |

$$\cdots + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(4,2,1^4)}) + 3 \cdot (S_{(3^2,2)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(4,2^3)}) + 4 \cdot (S_{(3^2,2)} \boxtimes S_{(4,3,1^3)}) + 5 \cdot (S_{(3^2,2)} \boxtimes S_{(4,3,2,1)}) + (S_{(3^2,2)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(4^2,2)}) + (S_{(3^2,2)} \boxtimes S_{(5,2,1^3)}) + (S_{(3^2,2)} \boxtimes S_{(5,2^2,1)}) + 2 \cdot (S_{(3^2,2)} \boxtimes S_{(5,3,1^2)}) + (S_{(3^2,2)} \boxtimes S_{(5,3,2)}) + (S_{(3^2,2)} \boxtimes S_{(5,4,1)}) + (S_{(4,1^4)} \boxtimes S_{(2^2,1^6)}) + (S_{(4,1^4)} \boxtimes S_{(2^3,1^4)}) + (S_{(4,1^4)} \boxtimes S_{(2^4,1^2)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(3,1^7)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(3,2,1^5)}) + 4 \cdot (S_{(4,1^4)} \boxtimes S_{(3,2^2,1^3)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(3,2^3,1)}) + (S_{(4,1^4)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(4,1^4)} \boxtimes S_{(3^2,2^2)}) + (S_{(4,1^4)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(4,1^4)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(4,1^4)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(4,1^4)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(4,2^3)}) + (S_{(4,1^4)} \boxtimes S_{(4,3,1^3)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(4,3,2,1)}) + (S_{(4,1^4)} \boxtimes S_{(4,3^2)}) + (S_{(4,1^4)} \boxtimes S_{(5,1^5)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(5,2,1^3)}) + 2 \cdot (S_{(4,1^4)} \boxtimes S_{(5,2^2,1)}) + (S_{(4,1^4)} \boxtimes S_{(5,3,1^2)}) + (S_{(4,1^4)} \boxtimes S_{(5,3,2)}) + (S_{(4,1^4)} \boxtimes S_{(6,3,1)}) + (S_{(4,2,1^2)} \boxtimes S_{(2^3,1^4)}) + (S_{(4,2,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(4,2,1^2)} \boxtimes S_{(2^5)}) + (S_{(4,2,1^2)} \boxtimes S_{(3,1^7)}) + 4 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2,1^5)}) + 6 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,1^4)}) + 6 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^2,2^2)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(3^3,1)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,1^6)}) + 8 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2,1^4)}) + 9 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,2^3)}) + 6 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3,1^3)}) + 8 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4,3^2)}) + (S_{(4,2,1^2)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(4^2,2)}) + 2 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,1^5)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,2,1^3)}) + 5 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,2^2,1)}) + 4 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,3,1^2)}) + 3 \cdot (S_{(4,2,1^2)} \boxtimes S_{(5,3,2)}) + (S_{(4,2,1^2)} \boxtimes S_{(5,4,1)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,2,1^2)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,2^2)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,3,1)}) + (S_{(4,2,1^2)} \boxtimes S_{(6,4)}) + (S_{(4,2^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(3,2,1^5)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(3,2^3,1)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(3^2,1^4)}) + 4 \cdot (S_{(4,2^2)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(3^2,2^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(3^3,1)}) + (S_{(4,2^2)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(4,2,1^4)}) + 6 \cdot (S_{(4,2^2)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(4,2^3)}) + 4 \cdot (S_{(4,2^2)} \boxtimes S_{(4,3,1^3)}) + 6 \cdot (S_{(4,2^2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(4,3^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(4^2,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(4^2,2)}) + (S_{(4,2^2)} \boxtimes S_{(5,1^5)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(5,2,1^3)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(5,2^2,1)}) + 3 \cdot (S_{(4,2^2)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(4,2^2)} \boxtimes S_{(5,3,2)}) + (S_{(4,2^2)} \boxtimes S_{(5,4,1)}) + (S_{(4,2^2)} \boxtimes S_{(6,2,1^2)}) + (S_{(4,2^2)} \boxtimes S_{(6,3,1)}) + (S_{(4,3,1)} \boxtimes S_{(3,2,1^5)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(3,2^2,1^3)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(3,2^3,1)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(3^2,1^4)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(3^2,2,1^2)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(3^2,2^2)}) + (S_{(4,3,1)} \boxtimes S_{(3^3,1)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(4,3,1)} \boxtimes S_{(4,2^2,1^2)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(4,2^3)}) + 7 \cdot (S_{(4,3,1)} \boxtimes S_{(4,3,1^3)}) + 7 \cdot (S_{(4,3,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(4,3,1)} \boxtimes S_{(4,3^2)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(4^2,1^2)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(4^2,2)}) + (S_{(4,3,1)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(4,3,1)} \boxtimes S_{(5,2^2,1)}) + 5 \cdot (S_{(4,3,1)} \boxtimes S_{(5,3,1^2)}) + 3 \cdot (S_{(4,3,1)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(4,3,1)} \boxtimes S_{(5,4,1)}) + (S_{(4,3,1)} \boxtimes S_{(6,1^4)}) + (S_{(4,3,1)} \boxtimes S_{(6,2,1^2)}) + (S_{(4,3,1)} \boxtimes S_{(6,2^2)}) + (S_{(4,3,1)} \boxtimes S_{(6,3,1)}) + (S_{(4^2)} \boxtimes S_{(3^2,1^4)}) + (S_{(4^2)} \boxtimes S_{(3^2,2^2)}) + (S_{(4^2)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(4^2)} \boxtimes S_{(4,3,1^3)}) + (S_{(4^2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(4^2)} \boxtimes S_{(4^2,1^2)}) + (S_{(4^2)} \boxtimes S_{(5,2,1^3)}) + (S_{(4^2)} \boxtimes S_{(5,2^2,1)}) + (S_{(4^2)} \boxtimes S_{(5,3,1^2)}) + (S_{(4^2)} \boxtimes S_{(5,3,2)}) + (S_{(4^2)} \boxtimes S_{(5,4,1)}) + (S_{(4^2)} \boxtimes S_{(6,2,1^2)}) + (S_{(5,1^3)} \boxtimes S_{(3,2,1^5)}) + (S_{(5,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(5,1^3)} \boxtimes S_{(3,2^3,1)}) + (S_{(5,1^3)} \boxtimes S_{(3^2,1^4)}) + (S_{(5,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(5,1^3)} \boxtimes S_{(3^2,2^2)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(4,1^6)}) + 3 \cdot (S_{(5,1^3)} \boxtimes S_{(4,2,1^4)}) + 4 \cdot (S_{(5,1^3)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(4,2^3)}) + (S_{(5,1^3)} \boxtimes S_{(4,3,1^3)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(4,3,2,1)}) + (S_{(5,1^3)} \boxtimes S_{(4,3^2)}) + 3 \cdot (S_{(5,1^3)} \boxtimes S_{(5,1^5)}) + 4 \cdot (S_{(5,1^3)} \boxtimes S_{(5,2,1^3)}) + 4 \cdot (S_{(5,1^3)} \boxtimes S_{(5,2^2,1)}) + (S_{(5,1^3)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(5,3,2)}) + (S_{(5,1^3)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(5,1^3)} \boxtimes S_{(6,2,1^2)}) + (S_{(5,1^3)} \boxtimes S_{(6,2^2)}) + (S_{(5,1^3)} \boxtimes S_{(6,3,1)}) + (S_{(5,1^3)} \boxtimes S_{(7,3)}) + (S_{(5,2,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(5,2,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(5,2,1)} \boxtimes S_{(3^2,1^4)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(5,2,1)} \boxtimes S_{(3^2,2^2)}) + (S_{(5,2,1)} \boxtimes S_{(3^3,1)}) + (S_{(5,2,1)} \boxtimes S_{(4,1^6)}) + 4 \cdot (S_{(5,2,1)} \boxtimes S_{(4,2,1^4)}) + 5 \cdot (S_{(5,2,1)} \boxtimes S_{(4,2^2,1^2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(4,2^3)}) + 4 \cdot (S_{(5,2,1)} \boxtimes S_{(4,3,1^3)}) + 5 \cdot (S_{(5,2,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(5,2,1)} \boxtimes S_{(4,3^2)}) + (S_{(5,2,1)} \boxtimes S_{(4^2,1^2)}) + (S_{(5,2,1)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(5,2,1)} \boxtimes S_{(5,1^5)}) + 7 \cdot (S_{(5,2,1)} \boxtimes S_{(5,2,1^3)}) + 6 \cdot (S_{(5,2,1)} \boxtimes S_{(5,2^2,1)}) + 5 \cdot (S_{(5,2,1)} \boxtimes S_{(5,3,1^2)}) + 3 \cdot (S_{(5,2,1)} \boxtimes S_{(5,3,2)}) + (S_{(5,2,1)} \boxtimes S_{(5,4,1)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(5,2,1)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(5,2,1)} \boxtimes S_{(6,3,1)}) + (S_{(5,2,1)} \boxtimes S_{(7,2,1)}) + (S_{(5,3)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(5,3)} \boxtimes S_{(4,2,1^4)}) + (S_{(5,3)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(5,3)} \boxtimes S_{(4,2^3)}) + 3 \cdot (S_{(5,3)} \boxtimes S_{(4,3,1^3)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(4,3,2,1)}) + (S_{(5,3)} \boxtimes S_{(4^2,1^2)}) + \cdots$$

$(8,10)$		17539198

$(8, 10)$	$\cdots + (S_{(5,3)} \boxtimes S_{(4^2,2)}) + 3 \cdot (S_{(5,3)} \boxtimes S_{(5,2,1^3)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(5,2^2,1)}) + 4 \cdot (S_{(5,3)} \boxtimes S_{(5,3,1^2)}) + (S_{(5,3)} \boxtimes S_{(5,3,2)}) + (S_{(5,3)} \boxtimes S_{(5,4,1)}) + (S_{(5,3)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(5,3)} \boxtimes S_{(6,2,1^2)}) + (S_{(5,3)} \boxtimes S_{(6,2^2)}) + (S_{(5,3)} \boxtimes S_{(6,3,1)}) + (S_{(5,3)} \boxtimes S_{(7,1^3)}) + (S_{(6,1^2)} \boxtimes S_{(4,2,1^4)}) + (S_{(6,1^2)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(6,1^2)} \boxtimes S_{(4,2^3)}) + (S_{(6,1^2)} \boxtimes S_{(4,3,1^3)}) + (S_{(6,1^2)} \boxtimes S_{(4,3,2,1)}) + 2 \cdot (S_{(6,1^2)} \boxtimes S_{(5,1^5)}) + 3 \cdot (S_{(6,1^2)} \boxtimes S_{(5,2,1^3)}) + 3 \cdot (S_{(6,1^2)} \boxtimes S_{(5,2^2,1)}) + (S_{(6,1^2)} \boxtimes S_{(5,3,1^2)}) + (S_{(6,1^2)} \boxtimes S_{(5,3,2)}) + 3 \cdot (S_{(6,1^2)} \boxtimes S_{(6,1^4)}) + 3 \cdot (S_{(6,1^2)} \boxtimes S_{(6,2,1^2)}) + 2 \cdot (S_{(6,1^2)} \boxtimes S_{(6,2^2)}) + (S_{(6,1^2)} \boxtimes S_{(6,3,1)}) + (S_{(6,1^2)} \boxtimes S_{(7,1^3)}) + (S_{(6,1^2)} \boxtimes S_{(7,2,1)}) + (S_{(6,2)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(6,2)} \boxtimes S_{(4,3,1^3)}) + (S_{(6,2)} \boxtimes S_{(4,3,2,1)}) + (S_{(6,2)} \boxtimes S_{(4^2,1^2)}) + (S_{(6,2)} \boxtimes S_{(5,1^5)}) + 3 \cdot (S_{(6,2)} \boxtimes S_{(5,2,1^3)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(5,2^2,1)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(5,3,1^2)}) + (S_{(6,2)} \boxtimes S_{(5,3,2)}) + 2 \cdot (S_{(6,2)} \boxtimes S_{(6,1^4)}) + 4 \cdot (S_{(6,2)} \boxtimes S_{(6,2,1^2)}) + (S_{(6,2)} \boxtimes S_{(6,2^2)}) + (S_{(6,2)} \boxtimes S_{(6,3,1)}) + (S_{(6,2)} \boxtimes S_{(7,1^3)}) + (S_{(6,2)} \boxtimes S_{(7,2,1)}) + (S_{(7,1)} \boxtimes S_{(5,2,1^3)}) + (S_{(7,1)} \boxtimes S_{(5,2^2,1)}) + (S_{(7,1)} \boxtimes S_{(5,3,1^2)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(6,1^4)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(6,2,1^2)}) + (S_{(7,1)} \boxtimes S_{(6,2^2)}) + 2 \cdot (S_{(7,1)} \boxtimes S_{(7,1^3)}) + (S_{(7,1)} \boxtimes S_{(7,2,1)}) + (S_{(8)} \boxtimes S_{(6,2,1^2)}) + (S_{(8)} \boxtimes S_{(7,1^3)})$	17539198
$(9, 10)$	$(-1) \cdot (S_{(1^9)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(2,1^7)} \boxtimes S_{(1^{10})}) + (-1) \cdot (S_{(2,1^7)} \boxtimes S_{(2,1^8)}) + (-1) \cdot (S_{(2,1^7)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(2,1^7)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2,1^7)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(2,1^8)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(3,1^7)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(2^2,1^5)} \boxtimes S_{(3^2,1^4)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(2^5)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(3^2,1^4)}) + (-1) \cdot (S_{(2^3,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(3^2,2,1^2)}) + (-1) \cdot (S_{(2^4,1)} \boxtimes S_{(3^2,2^2)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(2,1^8)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(3,1^7)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(3,1^6)} \boxtimes S_{(4,2,1^4)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,1^7)}) + (-2) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,2,1^5)}) + (-2) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3^2,1^4)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(3^2,2,1^2)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(4,1^6)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(4,2,1^4)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(4,2^2,1^2)}) + (-1) \cdot (S_{(3,2,1^4)} \boxtimes S_{(4,3,1^3)}) + (-1) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(2^4,1^2)}) + (-1) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(2^5)}) + (-1) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3,2,1^5)}) + (-2) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3,2^2,1^3)}) + (-2) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(3,2^2,1^2)} \boxtimes S_{(3^2,1^4)}) + (-2) \cdot (S_{(3,2^2,1^2)} \boxtimes 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$\cdots + (-1) \cdot (S_{(4,1^5)} \boxtimes S_{(4,2,1^4)}) + (-1) \cdot (S_{(4,1^5)} \boxtimes S_{(4,2^2,1^2)}) + (-1) \cdot (S_{(4,1^5)} \boxtimes S_{(5,2,1^3)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(3,2,1^5)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(3,2^3,1)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(3^2,1^4)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(3^2,2,1^2)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,1^6)}) + (-2) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,2,1^4)}) + (-2) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,2^2,1^2)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,2^3)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,3,1^3)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(4,3,2,1)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(5,1^5)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(5,2,1^3)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(5,2^2,1)}) + (-1) \cdot (S_{(4,2,1^3)} \boxtimes S_{(5,3,1^2)}) + (-1) \cdot (S_{(4,2^2,1)} \boxtimes 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+ (-1) \cdot (S_{(6,3)} \boxtimes S_{(7,2,1)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(6,1^4)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(6,2,1^2)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(6,2^2)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(7,1^3)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(7,2,1)}) + (-1) \cdot (S_{(7,1^2)} \boxtimes S_{(8,2)}) + (-1) \cdot (S_{(7,2)} \boxtimes S_{(6,2,1^2)}) + (-1) \cdot (S_{(7,2)} \boxtimes S_{(6,3,1)}) + (-1) \cdot (S_{(7,2)} \boxtimes S_{(7,1^3)}) + (-1) \cdot (S_{(7,2)} \boxtimes S_{(7,2,1)}) + (-1) \cdot (S_{(7,2)} \boxtimes S_{(8,1^2)}) + (-1) \cdot (S_{(8,1)} \boxtimes S_{(7,1^3)}) + (-1) \cdot (S_{(8,1)} \boxtimes S_{(7,2,1)}) + (-1) \cdot (S_{(8,1)} \boxtimes S_{(8,1^2)}) + (-1) \cdot (S_{(9)} \boxtimes S_{(8,1^2)})$

Row label: $(9, 10)$ | Value: -12700801

$(10,10)$	$(S_{(1^{10})} \boxtimes S_{(1^{10})}) + (S_{(2,1^8)} \boxtimes S_{(2,1^8)}) + (S_{(2^2,1^6)} \boxtimes S_{(2^2,1^6)}) + (S_{(2^3,1^4)} \boxtimes S_{(2^3,1^4)}) + (S_{(2^4,1^2)} \boxtimes S_{(2^4,1^2)}) + (S_{(2^5)} \boxtimes S_{(2^5)}) + (S_{(3,1^7)} \boxtimes S_{(3,1^7)}) + (S_{(3,2,1^5)} \boxtimes S_{(3,2,1^5)}) + (S_{(3,2^2,1^3)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3,2^3,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(3^2,1^4)} \boxtimes S_{(3^2,1^4)}) + (S_{(3^2,2,1^2)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(3^2,2^2)} \boxtimes S_{(3^2,2^2)}) + (S_{(3^3,1)} \boxtimes S_{(3^3,1)}) + (S_{(4,1^6)} \boxtimes S_{(4,1^6)}) + (S_{(4,2,1^4)} \boxtimes S_{(4,2,1^4)}) + (S_{(4,2^2,1^2)} \boxtimes S_{(4,2^2,1^2)}) + (S_{(4,2^3)} \boxtimes S_{(4,2^3)}) + (S_{(4,3,1^3)} \boxtimes S_{(4,3,1^3)}) + (S_{(4,3,2,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(4,3^2)} \boxtimes S_{(4,3^2)}) + (S_{(4^2,1^2)} \boxtimes S_{(4^2,1^2)}) + (S_{(4^2,2)} \boxtimes S_{(4^2,2)}) + (S_{(5,1^5)} \boxtimes S_{(5,1^5)}) + (S_{(5,2,1^3)} \boxtimes S_{(5,2,1^3)}) + (S_{(5,2^2,1)} \boxtimes S_{(5,2^2,1)}) + (S_{(5,3,1^2)} \boxtimes S_{(5,3,1^2)}) + (S_{(5,3,2)} \boxtimes S_{(5,3,2)}) + (S_{(5,4,1)} \boxtimes S_{(5,4,1)}) + (S_{(5^2)} \boxtimes S_{(5^2)}) + (S_{(6,1^4)} \boxtimes S_{(6,1^4)}) + (S_{(6,2,1^2)} \boxtimes S_{(6,2,1^2)}) + (S_{(6,2^2)} \boxtimes S_{(6,2^2)}) + (S_{(6,3,1)} \boxtimes S_{(6,3,1)}) + (S_{(6,4)} \boxtimes S_{(6,4)}) + (S_{(7,1^3)} \boxtimes S_{(7,1^3)}) + (S_{(7,2,1)} \boxtimes S_{(7,2,1)}) + (S_{(7,3)} \boxtimes S_{(7,3)}) + (S_{(8,1^2)} \boxtimes S_{(8,1^2)}) + (S_{(8,2)} \boxtimes S_{(8,2)}) + (S_{(9,1)} \boxtimes S_{(9,1)}) + (S_{(10)} \boxtimes S_{(10)})$	3628800

Table 2: Equivariant and integral Euler characteristics of
$\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes m})$

3 Formula in terms of $\mathrm{Ext}^*_{\mathcal{F}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes m})$

It has been observed in [Hai23, Remark 4.23] that, in the range computed, we could express the Euler characteristics $\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k}))$ in terms of $\mathrm{Ext}^{k-i}_{\mathcal{F}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k-i})$ for $0 \leq i \leq k$, up to some small correction terms. More precisely, the following formula was given

$$\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k})) \approx \sum_{i=0}^{k} (-1)^i [\mathrm{Ind}^{\mathfrak{S}_n^{op} \times \mathfrak{S}_{n+k}}_{\mathfrak{S}_n^{op} \times \mathfrak{S}_{n+k-i}} \mathrm{Ext}^{k-i}_{\mathcal{F}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k-i})]$$
$$+ (-1)^{k+1}[S_{(n)} \boxtimes S_{(n+k)}] + (-1)^{k+1} M_{n,k},$$

with $M_{n,k}$ being trivial if k is odd or $n < 2$, and otherwise $M_{n,k} = [S_{(1^n)} \boxtimes S_{(1^{n+k})}]$.

The following table shows the correction terms, i.e. which terms must be added to the right-hand side in order to make it equal to the left-hand side.

(k, n)	difference with $\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k})$
$(1,0)$	0
$(1,1)$	0
$(1,2)$	0
$(1,3)$	0
$(1,4)$	0
$(1,5)$	0
$(1,6)$	0
$(1,7)$	0
$(1,8)$	0
$(1,9)$	0
$(2,0)$	0
$(2,1)$	0
$(2,2)$	0
$(2,3)$	0

$(2,4)$	0
$(2,5)$	0
$(2,6)$	0
$(2,7)$	0
$(2,8)$	0
$(3,0)$	0
$(3,1)$	0
$(3,2)$	$(S_{(2)} \boxtimes S_{(1^5)})$
$(3,3)$	$(-1) \cdot (S_{(2,1)} \boxtimes S_{(2^3)})$
$(3,4)$	0
$(3,5)$	0
$(3,6)$	0
$(3,7)$	0
$(4,0)$	0
$(4,1)$	0
$(4,2)$	0
$(4,3)$	$(S_{(2,1)} \boxtimes S_{(2^2,1^3)}) + (S_{(3)} \boxtimes S_{(1^7)})$
$(4,4)$	0
$(4,5)$	0
$(4,6)$	0
$(5,0)$	0
$(5,1)$	0
$(5,2)$	$(S_{(2)} \boxtimes S_{(1^7)})$
$(5,3)$	$(-1) \cdot (S_{(2,1)} \boxtimes S_{(2,1^6)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^3,1^2)})$
$(5,4)$	$(-1) \cdot (S_{(3,1)} \boxtimes S_{(3,2^3)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(3^2,1^3)}) + (-1) \cdot (S_{(3,1)} \boxtimes S_{(4^2,1)}) + (S_{(4)} \boxtimes S_{(1^9)})$
$(5,5)$	0
$(6,0)$	0
$(6,1)$	0
$(6,2)$	0
$(6,3)$	$(S_{(2,1)} \boxtimes S_{(1^9)}) + (S_{(2,1)} \boxtimes S_{(2^2,1^5)}) + (S_{(2,1)} \boxtimes S_{(2^3,1^3)}) + (S_{(3)} \boxtimes S_{(1^9)})$
$(6,4)$	$(-1) \cdot (S_{(2^2)} \boxtimes S_{(3^2,2^2)}) + (S_{(3,1)} \boxtimes S_{(2^4,1^2)}) + (S_{(3,1)} \boxtimes S_{(3,2,1^5)}) + (S_{(3,1)} \boxtimes S_{(3,2^2,1^3)}) + (S_{(3,1)} \boxtimes S_{(3,2^3,1)}) + (S_{(3,1)} \boxtimes S_{(3^2,1^4)}) + (S_{(3,1)} \boxtimes S_{(3^2,2,1^2)}) + (S_{(3,1)} \boxtimes S_{(3^2,2^2)}) + (S_{(3,1)} \boxtimes S_{(4,3,1^3)}) + (S_{(3,1)} \boxtimes S_{(4,3,2,1)}) + (S_{(3,1)} \boxtimes S_{(4^2,1^2)}) + (S_{(3,1)} \boxtimes S_{(5^2)})$
$(7,0)$	0
$(7,1)$	0
$(7,2)$	$(S_{(2)} \boxtimes S_{(1^9)})$
$(7,3)$	$(S_{(1^3)} \boxtimes S_{(3^2,2^2)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2,1^8)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^2,1^6)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^3,1^4)}) + (-1) \cdot (S_{(2,1)} \boxtimes S_{(2^5)})$
$(8,0)$	0
$(8,1)$	0
$(8,2)$	0

Table 3: Additional terms that must be added in order to obtain $\chi(\mathrm{Ext}^*_{\mathcal{F}^{\mathrm{out}}_{\mathrm{pol}}(\mathbf{gr})}(\mathfrak{a}^{\otimes n}, \mathfrak{a}^{\otimes n+k})$

References

[GH24]   N. Gadish and L. Hainaut. "Configuration spaces on a wedge of spheres and Hochschild–Pirashvili homology". en. In: *Annales Henri Lebesgue* 7 (2024), pp. 841–902. DOI: 10.5802/ahl.213. URL: https://ahl.centre-mersenne.org/articles/10.5802/ahl.213/.

[Hai23]   L. Hainaut. *(Non-)vanishing results for extensions between simple outer functors on free groups.* 2023. arXiv: 2311.16881.

[Sage10.5]   The Sage Developers et al. *SageMath, version 10.5.* 2024. URL: http://www.sagemath.org.