

D_3 and S_3 are isomorphic

		1st →					
D_3 :	2nd ↓	R_0	R_{120}	R_{240}	F_1	F_2	F_3
	R_0	R_0	R_{120}	R_{240}	F_1	F_2	F_3
	R_{120}	R_{120}	R_{240}	R_0	F_3	F_1	F_2
	R_{240}	R_{240}	R_0	R_{120}	F_2	F_3	F_1
	F_1	F_1	F_2	F_3	R_0	R_{120}	R_{240}
	F_2	F_2	F_3	F_1	R_{240}	R_0	R_{120}
	F_3	F_3	F_1	F_2	R_{120}	R_{240}	R_0

		1st →					
S_3	2nd ↓	ϵ	(123)	(132)	(12)	(23)	(13)
	ϵ	ϵ	(123)	(132)	(12)	(23)	(13)
	(123)	(123)	(132)	ϵ	(13)	(12)	(23)
	(132)	(132)	ϵ	(123)	(23)	(13)	(12)
	(12)	(12)	(23)	(13)	ϵ	(123)	(132)
	(23)	(23)	(13)	(12)	(132)	ϵ	(123)
	(13)	(13)	(12)	(23)	(123)	(132)	ϵ