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## On rank 2 and rank 3 residually connected geometries for $M_{22}$

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**Abstract.** We determine all rank 2 and rank 3 residually connected flag transitive geometries for the Mathieu group  $M_{22}$  for which object stabilizer are maximal subgroups.

**Keywords:** Residually connected flag transitive geometries, Mathieu group

**MSC 2000 classification:** 51Exx

### Introduction

In this paper we shall describe all rank 2 and rank 3 residually connected flag transitive geometries for the Mathieu group  $M_{22}$  whose object stabilizers are maximal subgroups. We begin by reviewing geometries and some standard notation. A geometry is a triple  $(\Gamma, I, \star)$  where  $\Gamma$  is a set,  $I$  an index set and  $\star$  a symmetric incidence relation on  $\Gamma$  which satisfy

(i)  $\Gamma = \dot{\bigcup}_{i \in I} \Gamma_i$ ; and

(ii) if  $x \in \Gamma_i$ ,  $y \in \Gamma_j$  ( $i, j \in I$ ) and  $x \star y$ , then  $i \neq j$ .

The elements of  $\Gamma_i$  are called objects of type  $i$ , and  $|I|$  is the rank of the geometry  $\Gamma$  (as is usual we use  $\Gamma$  in place of the triple  $(\Gamma, I, \star)$ ). A flag  $F$  of  $\Gamma$  is a subset of  $\Gamma$  which, for all  $x, y \in F$ ,  $x \neq y$ ,  $x \star y$ . The rank of  $F$  is  $|F|$ , the corank of  $F$  is  $|I \setminus F|$  and the type of  $F$  is  $\{i \in I \mid F \cap \Gamma_i \neq \emptyset\}$ . All geometries we consider are assumed to contain at least one flag of rank  $|I|$ . The automorphism group of  $\Gamma$ ,  $Aut\Gamma$ , consists of all permutations of  $\Gamma$  which preserve the sets  $\Gamma_i$  and the incidence relation  $\star$ . Let  $G$  be a subgroup of  $Aut\Gamma$ . We call  $\Gamma$  a flag transitive geometry for  $G$  if for any two flags  $F_1$  and  $F_2$  of  $\Gamma$  having the same type, there exists  $g \in G$  such that  $F_1^g = F_2$ . For  $\Delta \subseteq \Gamma$ , the residue of  $\Delta$ , denoted  $\Gamma_\Delta$ , is defined to be  $\{x \in \Gamma \mid x \star y \text{ for all } y \in \Delta\}$ . A geometry  $\Gamma$  is called residually connected if for all flags  $F$  of  $\Gamma$  of corank 2 the incidence graph of

$\Gamma_F$  is connected. Now suppose that  $\Gamma$  is a flag transitive geometry for the group  $G$ . As is well-known we may view  $\Gamma$  in terms of certain cosets of  $G$ . This is the approach we shall follow here. For each  $i \in I$  choose an  $x_i \in \Gamma_i$  and set  $G_i = \text{Stab}_G(x_i)$ . Let  $\mathcal{F} = \{G_i : i \in I\}$ . We now define a geometry  $\Gamma(G, \mathcal{F})$  where the objects of type  $i$  in  $\Gamma(G, \mathcal{F})$  are the right cosets of  $G_i$  in  $G$  and for  $G_i x$  and  $G_j y$  ( $x, y \in G, i, j \in I$ )  $G_i x \star G_j y$  whenever  $G_i x \cap G_j y \neq \emptyset$ . Also by letting  $G$  act upon  $\Gamma(G, \mathcal{F})$  by right multiplication we see that  $\Gamma(G, \mathcal{F})$  is a flag transitive geometry for  $G$ . Moreover  $\Gamma$  and  $\Gamma(G, \mathcal{F})$  are isomorphic geometries for  $G$ . So we shall be studying geometries of the form  $\Gamma(G, \mathcal{F})$ , where  $G \cong M_{22}$  and  $G_i$  is a maximal subgroup of  $G$  for all  $i \in I$ . A numerical summary of our results is given in

**1 Theorem.** *Suppose  $G \cong M_{22}$  and  $\Gamma$  is a residually connected flag transitive geometry for  $G$  with  $\text{Stab}_G(x)$  a maximal subgroup of  $G$  for all  $x \in \Gamma$ .*

(i) *If  $\Gamma$  has rank 2, then, up to conjugacy in  $\text{Aut}G$ , there are 86 possibilities for  $\Gamma$ .*

(ii) *If  $\Gamma$  has rank 3, then, up to conjugacy in  $\text{Aut}G$ , there are 1239 possibilities for  $\Gamma$ .*

In Section 2 and 3 we give explicit descriptions of these geometries making heavy use of the degree 22 permutation representation for  $M_{22}$ . The descriptions given readily allow further investigation of these geometries. For the verification of these lists and more details we refer the reader to [6].

Beukenhout, in [1], sought to give a wider view of geometries so as to encompass configurations observed in the finite sporadic simple groups. An outgrowth of this has been attempts to catalogue various subcollections of geometries for the finite sporadic simple groups (and other related groups). So-called minimal parabolic geometries and maximal 2-local geometries were investigated in [13] and [14] while geometries satisfying certain additional conditions for a number of (relatively) small order simple groups have been exhaustively examined. See, for example, [2], [5], [7], [8], [9], [10], [11], [12], [15]; the results in most of these papers were obtained using various computer algebra systems. The lists here, by contrast, has been obtained by "hand".

For the remainder of this paper  $G$  will denote  $M_{22}$ , the Mathieu Group of degree 22. Also  $\Omega$  will denote a 24 element set possessing the Steiner system  $S(24, 8, 5)$  as described by Curtis's MOG [4]. We will follow the notation of [4].

So

$$\Omega = \begin{array}{|c|c|c|} \hline & & \\ \hline O_1 & O_2 & O_3 \\ \hline \end{array} = \begin{array}{|c|c|c|c|c|} \hline \infty & 14 & 17 & 11 & 22 & 19 \\ \hline 0 & 8 & 4 & 13 & 1 & 9 \\ \hline 3 & 20 & 16 & 7 & 12 & 5 \\ \hline 15 & 18 & 10 & 2 & 21 & 6 \\ \hline \end{array},$$

where  $O_1, O_2$  and  $O_3$  are the heavy bricks of the MOG. For our later concrete

descriptions we shall identify  $G$  with  $Stab_{M_{24}}\{\infty\} \cap Stab_{M_{24}}\{14\}$ . Here  $M_{24}$  is the Mathieu group of degree 24 which leaves invariant the Steiner system  $S(24, 8, 5)$  on  $\Omega$ . Set  $\Lambda = \Omega \setminus \{\infty, 14\}$ . We shall discuss certain (well-known) combinatorial objects associated with  $\Omega$  and  $\Lambda$ . An octad of  $\Omega$  is just an 8-element block of the Steiner system and a subset of  $\Omega$  is called a dodecad if it is the symmetric difference of two octads of  $\Omega$  which intersect in a set of size two. The following sets will appear frequently when we describe geometries for  $G$ .

- (i)  $\mathcal{H} = \{X \subseteq \Lambda \mid X \cup \{\infty, 14\} \text{ is an octad of } \Omega\}$  (hexads of  $\Lambda$ ).
- (ii)  $\mathcal{H}_p = \{X \subseteq \Lambda \mid X \cup \{14\} \text{ is an octad of } \Omega\}$  (heptads of  $\Lambda$ ).
- (iii)  $\mathcal{H}_{p\infty} = \{X \subseteq \Lambda \mid X \cup \{\infty\} \text{ is an octad of } \Omega\}$  (heptads of  $\Lambda$ ).
- (iv)  $\mathcal{O} = \{X \subseteq \Lambda \mid X \text{ is an octad of } \Omega\}$  (octads of  $\Lambda$ ).
- (v)  $\mathcal{D} = \{X \subseteq \Lambda \mid |X| = 2\}$  (duads of  $\Lambda$ ).
- (vi)  $\mathcal{D}_o = \{X \subseteq \Lambda \mid X \text{ is a dodecad of } \Omega\}$  (dodecads of  $\Lambda$ ).
- (vii)  $\mathcal{E} = \{X \subseteq \Lambda \mid \text{one of } X \cup \{\infty\} \text{ and } X \cup \{14\} \text{ is a dodecad of } \Omega\}$  (endecads of  $\Lambda$ ).

From the [3], the conjugacy classes of the maximal subgroups of  $G$  are as follows:

Order	Index	$M_i$	Description
20160	22	$M_1 \cong L_3(4)$	$M_1 = Stab_G\{a\}, a \in \Lambda$
5760	77	$M_2 \cong 2^4 : A_6$	$M_2 = Stab_G\{X\}, X \in \mathcal{H}$
2520	176	$M_3 \cong A_7$	$M_3 = Stab_G\{X\}, X \in \mathcal{H}_p$
2520	176	$M_4 \cong A_7$	$M_4 = Stab_G\{X\}, X \in \mathcal{H}_{p\infty}$
1344	330	$M_5 \cong 2^3 : L_3(2)$	$M_5 = Stab_G\{X\}, X \in \mathcal{O}$
1920	231	$M_6 \cong 2^4 : S_5$	$M_6 = Stab_G\{X\}, X \in \mathcal{D}$
720	616	$M_7 \cong M_{10}$	$M_7 = Stab_G\{X\}, X \in \mathcal{D}_o$
660	672	$M_8 \cong L_2(11)$	$M_8 = Stab_G\{X\}, X \in \mathcal{E}$

For  $i \in \{1, \dots, 8\}$ , we let  $\mathfrak{M}_i$  denote the conjugacy class of  $M_i$ ,  $M_i$  as given in the previous table. We also set  $\mathfrak{M} = \bigcup_{i=1}^8 \mathfrak{M}_i$ ; so  $\mathfrak{M}$  consist of all maximal subgroups of  $G$ . Also put  $\mathfrak{X} = \Lambda \cup \mathcal{H} \cup \mathcal{H}_p \cup \mathcal{H}_{p\infty} \cup \mathcal{O} \cup \mathcal{D} \cup \mathcal{D}_o \cup \mathcal{E}$ . For  $X, Y \in \mathfrak{X}$  we have that  $X = Y$  if and only if  $Stab_G\{X\} = Stab_G\{Y\}$  except in the case when  $X, Y \in \mathcal{E}$ . In this latter case when  $Y = \Lambda \setminus X$  we have  $Stab_G\{X\} = Stab_G\{Y\} (\cong L_2(11))$ . In order to have a (1-1) correspondence between subgroups in  $\mathfrak{M}$  and appropriate sets of  $\Lambda$  in  $\mathfrak{X}$ , for endecads we shall always choose  $X \in \mathcal{E}$  so as  $X \cup \{\infty\}$  is a dodecad of  $\Omega$ .

Suppose  $G_1$  and  $G_2$  are maximal subgroups of  $G$  with  $G_1 \neq G_2$ . Set  $G_{12} = G_1 \cap G_2$ . We use  $\mathfrak{M}_{ij}(t)$  to describe  $\{G_1, G_2, G_1 \cap G_2\}$  according to the following scheme:  $G_1 \in \mathfrak{M}_i, G_2 \in \mathfrak{M}_j$  (and so  $G_1 = Stab_G(X_1)$  and  $G_2 = Stab_G(X_2)$  for some appropriate subsets  $X_1$  and  $X_2$  of  $\Lambda$  in  $\mathfrak{X}$ ) with  $|X_1 \cap X_2| = t$ . When listing up the rank 2 geometries of  $G$  in Theorem 2 the notation  $\mathfrak{M}_{ij}(t)$  frequently suffices to describe the geometries up to conjugacy in  $AutG$ . To distinguish

those geometries where this is not the case we shall write  $\mathfrak{M}_{ij}(t_l)$  with  $l \in \{1, 2\}$ ; see after Theorem 2 for the details of these cases. Now suppose we have three distinct maximal subgroup of  $G$ ,  $G_1, G_2$  and  $G_3$ . We shall use  $G_{12}, G_{13}, G_{23}$  and  $G_{123}$  to denote, respectively  $G_1 \cap G_2, G_1 \cap G_3, G_2 \cap G_3$  and  $G_1 \cap G_2 \cap G_3$ . We extend the above notation using  $\mathfrak{M}_{ijk}(t_{ij}, t_{ik}, t_{jk})$  to indicate that  $G_1 \in \mathfrak{M}_i, G_2 \in \mathfrak{M}_j, G_3 \in \mathfrak{M}_k$  with  $|X_i \cap X_j| = t_{ij}, |X_i \cap X_k| = t_{ik}$  and  $|X_j \cap X_k| = t_{jk}$ . (Here  $G_1 = \text{Stab}_G(X_i), G_2 = \text{Stab}_G(X_j)$  and  $G_3 = \text{Stab}_G(X_k)$  for suitable subsets  $X_i, X_j$  and  $X_k$  of  $\Lambda$  in  $\mathfrak{X}$ .) Again we run into the possibility that in some instances, we need to further subdivide these cases, and we do this using the ad hoc notation  $\mathfrak{M}_{ijk}(t_{ij}, t_{ik}, t_{jk}; l)$  where  $l \in \{1, 2, 3\}$ . See the end of Section 2 for further explanation of this notation. There is a further complexity caused by the division in the rank 2 cases mentioned earlier. In order to accommodate this we use, for example  $\mathfrak{M}_{155}(0, 0, 4_1; 2)$  in Theorem 3 to tell us that, not only is  $|X_j \cap X_k| = 4$  but we are in ‘‘Case 1’’ of this situation as described in Theorem 2. We note that if two or more of  $i, j$  and  $k$  are equal, apparently different parameters  $t_{ij}, t_{ik}, t_{jk}$  may describe the same situation. For example  $\mathfrak{M}_{333}(1, 1, 3)$  and  $\mathfrak{M}_{333}(3, 1, 1)$  describe the same configuration as do  $\mathfrak{M}_{335}(1, 2, 4)$  and  $\mathfrak{M}_{335}(1, 4, 2)$ .

We remark that the geometry  $\Gamma = \Gamma(G, \mathcal{F})$  where  $\mathcal{F} = \{G_1, G_2, G_3\}$  is residually connected if and only if  $G_1 = \langle G_{12}, G_{13} \rangle, G_2 = \langle G_{12}, G_{23} \rangle$  and  $G_3 = \langle G_{13}, G_{23} \rangle$ . Also we observe that the conjugacy classes  $\mathfrak{M}_3$  and  $\mathfrak{M}_4$  fuse in  $\text{Aut}G$ .

Below we give certain subsets of  $\Lambda$  which will be encountered frequently in our lists.

$$\begin{aligned}
 h_1 &= \begin{array}{|c|c|c|} \hline \times \times & & \\ \hline \times \times & & \\ \times \times & & \\ \hline \end{array}, &
 h_2 &= \begin{array}{|c|c|c|} \hline & \times \times & \times \\ \hline & & \times \\ & & \times \\ \hline \end{array}, &
 h_3 &= \begin{array}{|c|c|c|} \hline \times \times & \times \times & \\ \hline \times \times & \times \times & \\ & & \\ \hline \end{array} \\
 h_4 &= \begin{array}{|c|c|c|} \hline \times \times & & \times \times \\ \hline \times \times & & \times \times \\ & & \\ \hline \end{array}, &
 h_5 &= \begin{array}{|c|c|c|} \hline & \times \times & \times \\ \hline & & \times \\ & & \times \\ \hline \end{array}, &
 h_6 &= \begin{array}{|c|c|c|} \hline \times \times & & \\ \hline & & \\ & & \times \times \\ \times \times & & \times \times \\ \hline \end{array}
 \end{aligned}$$

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$$\begin{aligned}
 h_1^* &= \begin{array}{|c|c|c|} \hline & \times & \\ \hline \times & \times & \\ \times & \times & \\ \hline \end{array}, &
 h_2^* &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \times \\ \hline \times & & \\ \times & & \\ \hline \end{array}, &
 h_3^* &= \begin{array}{|c|c|c|} \hline \times & \times & \\ \hline \times & \times & \\ \times & \times & \\ \hline \end{array}
 \end{aligned}$$

$$\begin{aligned}
 h_4^* &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \times \\ \hline \times & & \\ \hline \times & & \\ \hline \end{array}, & h_5^* &= \begin{array}{|c|c|c|} \hline \times & & \times \\ \hline \times & & \times \\ \hline \times & & \times \\ \hline \end{array}, & h_6^* &= \begin{array}{|c|c|c|} \hline \times & & \times \\ \hline \times & & \times \\ \hline \times & & \times \\ \hline \end{array} \\
 h_7^* &= \begin{array}{|c|c|c|} \hline \times & \times & \\ \hline \times & \times & \\ \hline \times & \times & \\ \hline \end{array}, & h_8^* &= \begin{array}{|c|c|c|} \hline \times & \times & \times \times \\ \hline & & \times \times \\ \hline & & \times \times \\ \hline \end{array}, & h_9^* &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \\ \hline & \times & \\ \hline & \times & \\ \hline \end{array} \\
 h_{10}^* &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \\ \hline & \times & \times \\ \hline & & \\ \hline \end{array}
 \end{aligned}$$

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$$\begin{aligned}
 O_4 &= \begin{array}{|c|c|c|} \hline & \times & \times \\ \hline & \times & \times \\ \hline & \times & \times \\ \hline \end{array}, & O_5 &= \begin{array}{|c|c|c|} \hline & \times & \times \\ \hline & \times & \times \\ \hline & \times & \times \\ \hline \end{array}, & O_6 &= \begin{array}{|c|c|c|} \hline & \times & \times \\ \hline & \times & \times \\ \hline & \times & \times \\ \hline \end{array} \\
 O_7 &= \begin{array}{|c|c|c|} \hline & \times \times & \times \times \\ \hline & \times \times & \times \times \\ \hline & & \\ \hline \end{array}
 \end{aligned}$$

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$$\begin{aligned}
 d_1 &= \begin{array}{|c|c|c|} \hline \times \times & \times \times & \times \\ \hline \times \times & & \times \\ \hline \times \times & & \times \\ \hline \end{array}, & d_2 &= \begin{array}{|c|c|c|} \hline \times \times & \times \times & \times \\ \hline \times \times & & \times \\ \hline \times \times & & \times \\ \hline \end{array}, & d_3 &= \begin{array}{|c|c|c|} \hline \times \times & \times \times & \times \\ \hline & \times \times & \times \\ \hline & \times \times & \times \\ \hline \end{array}
 \end{aligned}$$

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$$\begin{aligned}
 e_1 &= \begin{array}{|c|c|c|} \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}, & e_2 &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \times \\ \hline \times & \times \times & \\ \hline \times & \times \times & \\ \hline \end{array}, & e_3 &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \times \\ \hline \times & & \times \times \\ \hline \times & & \times \times \\ \hline \end{array} \\
 e_3 &= \begin{array}{|c|c|c|} \hline \times & \times \times & \times \times \\ \hline \times & \times \times & \\ \hline \times & \times \times & \\ \hline \end{array}
 \end{aligned}$$

Our notation is as in the [3] with the following addition:  $SD_n$  is the semidihedral group of order  $n$ ,  $F_n$  a Frobenius group of order  $n$  and  $(S_n \times S_m)^+$  is the group of even permutation in the permutation group  $S_n \times S_m$ .

## 1 Rank 2 geometries of $M_{22}$

**2 Theorem.** *Up to conjugacy in  $\text{Aut}G$  there are 86 rank 2 geometries  $\Gamma = \Gamma(G, \{G_1, G_2\})$  with  $G_1, G_2 \in \mathfrak{M}$ . These together with the shape of  $G_{12}$ , are listed in the following table.*

$\Gamma$	$G_{12}$		$\Gamma$	$G_{12}$		$\Gamma$	$G_{12}$
$\mathfrak{M}_{11}(0)$	$2^4A_5$		$\mathfrak{M}_{12}(0)$	$A_6$		$\mathfrak{M}_{12}(1)$	$2^4A_5$
$\mathfrak{M}_{13}(0)$	$L_3(2)$		$\mathfrak{M}_{13}(1)$	$A_6$		$\mathfrak{M}_{15}(0)$	$2^4S_3$
$\mathfrak{M}_{15}(1)$	$L_3(2)$		$\mathfrak{M}_{16}(0)$	$2^4S_3$		$\mathfrak{M}_{16}(1)$	$2^4A_5$
$\mathfrak{M}_{17}(0)$	$M_9$		$\mathfrak{M}_{17}(1)$	$A_5$		$\mathfrak{M}_{18}(0)$	$A_5$
$\mathfrak{M}_{18}(1)$	$A_5$						
$\mathfrak{M}_{22}(0)$	$A_6$		$\mathfrak{M}_{22}(2)$	$2^2S_4$		$\mathfrak{M}_{23}(1)$	$A_5$
$\mathfrak{M}_{23}(3)$	$(S_3 \times S_4)^+$		$\mathfrak{M}_{25}(0)$	$2^3S_4$		$\mathfrak{M}_{25}(2)$	$S_4$
$\mathfrak{M}_{25}(4)$	$2^2S_4$		$\mathfrak{M}_{26}(0)$	$2 \times S_4$		$\mathfrak{M}_{26}(1)$	$A_5$
$\mathfrak{M}_{26}(2)$	$2^4S_4$		$\mathfrak{M}_{27}(2)$	$S_4$		$\mathfrak{M}_{27}(4)$	$SD_{16}$
$\mathfrak{M}_{27}(6)$	$A_6$		$\mathfrak{M}_{28}(1)$	$A_5$		$\mathfrak{M}_{28}(3)$	$D_{12}$
$\mathfrak{M}_{28}(5)$	$A_5$						
$\mathfrak{M}_{33}(1)$	$3^24$		$\mathfrak{M}_{33}(3)$	$S_4$		$\mathfrak{M}_{34}(0)$	$L_3(2)$
$\mathfrak{M}_{34}(2)$	$F_{20}$		$\mathfrak{M}_{34}(4)$	$(S_3 \times S_4)^+$		$\mathfrak{M}_{35}(0)$	$L_3(2)$
$\mathfrak{M}_{35}(2)$	$D_{12}$		$\mathfrak{M}_{35}(4)$	$S_4$		$\mathfrak{M}_{36}(0)$	$S_4$
$\mathfrak{M}_{36}(1)$	$S_4$		$\mathfrak{M}_{36}(2)$	$S_5$		$\mathfrak{M}_{37}(2)$	$F_{20}$
$\mathfrak{M}_{37}(4)$	$S_3$		$\mathfrak{M}_{37}(6)$	$3^24$		$\mathfrak{M}_{38}(2)$	$D_{12}$
$\mathfrak{M}_{38}(4)$	$S_3$		$\mathfrak{M}_{38}(6)$	$A_5$			
$\mathfrak{M}_{55}(0)$	$2^3S_4$		$\mathfrak{M}_{55}(2)$	$D_8$		$\mathfrak{M}_{55}(4_1)$	$A_4$
$\mathfrak{M}_{55}(4_2)$	$2^42$		$\mathfrak{M}_{56}(0_1)$	$2^4(2 \times S_3)$		$\mathfrak{M}_{56}(0_2)$	$2 \times D_8$
$\mathfrak{M}_{56}(1)$	$A_4$		$\mathfrak{M}_{56}(2)$	$2^2(2 \times S_3)$		$\mathfrak{M}_{57}(2)$	$S_4$
$\mathfrak{M}_{57}(4_1)$	$S_4$		$\mathfrak{M}_{57}(4_2)$	$4$		$\mathfrak{M}_{57}(6)$	$D_8$
$\mathfrak{M}_{58}(2)$	$D_{12}$		$\mathfrak{M}_{58}(4_1)$	$2^2$		$\mathfrak{M}_{58}(4_2)$	$A_4$
$\mathfrak{M}_{58}(6)$	$D_{12}$						
$\mathfrak{M}_{66}(0_1)$	$D_{12}$		$\mathfrak{M}_{66}(0_2)$	$2^3D_8$		$\mathfrak{M}_{66}(1)$	$2^43$
$\mathfrak{M}_{67}(0)$	$SD_{16}$		$\mathfrak{M}_{67}(1)$	$S_3$		$\mathfrak{M}_{67}(2_1)$	$F_{20}$
$\mathfrak{M}_{67}(2_2)$	$S_4$		$\mathfrak{M}_{68}(0)$	$D_{12}$		$\mathfrak{M}_{68}(1_1)$	$D_{10}$
$\mathfrak{M}_{68}(1_2)$	$A_4$		$\mathfrak{M}_{68}(2)$	$D_{12}$			
$\mathfrak{M}_{77}(4)$	$SD_{16}$		$\mathfrak{M}_{77}(6)$	$2$		$\mathfrak{M}_{77}(8_1)$	$4$
$\mathfrak{M}_{77}(8_2)$	$S_4$		$\mathfrak{M}_{78}(4)$	$S_3$		$\mathfrak{M}_{78}(6_1)$	$D_{10}$
$\mathfrak{M}_{78}(6_2)$	$2$		$\mathfrak{M}_{78}(8)$	$S_3$			
$\mathfrak{M}_{88}(3)$	$D_{12}$		$\mathfrak{M}_{88}(5_1)$	$2$		$\mathfrak{M}_{88}(5_2)$	$D_{10}$
$\mathfrak{M}_{88}(7_1)$	$2^2$		$\mathfrak{M}_{88}(7_2)$	$A_4$			

We now define the subgroups for  $\mathfrak{M}_{ij}(t_l)$  ( $l \in \{1, 2\}$ ) by giving the  $X_i \in \mathfrak{X}$  such that  $G_i = \text{Stab}_G X_i$  ( $i = 1, 2$ ).

$\mathfrak{M}_{ij}(t_l)$	$X_1$	$X_2$												
$\mathfrak{M}_{55}(4_1)$	$O_2$	$O_6$												
$\mathfrak{M}_{55}(4_2)$	$O_2$	$O_7$												
$\mathfrak{M}_{56}(O_1)$	$O_2$	$\{0, 8\}$												
$\mathfrak{M}_{56}(O_2)$	$O_2$	$\{19, 22\}$												
$\mathfrak{M}_{57}(4_1)$	$O_3$	$d_1$												
$\mathfrak{M}_{57}(4_2)$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>xx</td><td></td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> </table>		xx		x	x	x	x	x	x	$d_1$			
	xx													
x	x	x												
x	x	x												
$\mathfrak{M}_{58}(4_1)$	$O_7$	$e_2$												
$\mathfrak{M}_{58}(4_2)$	$O_3$	$e_1$												
$\mathfrak{M}_{66}(O_1)$	$\{11, 17\}$	$\{19, 22\}$												
$\mathfrak{M}_{66}(O_2)$	$\{0, 8\}$	$\{3, 20\}$												
$\mathfrak{M}_{67}(2_1)$	$\{8, 17\}$	$d_1$												
$\mathfrak{M}_{67}(2_2)$	$\{11, 17\}$	$d_1$												
$\mathfrak{M}_{68}(1_1)$	$\{1, 22\}$	$e_2$												
$\mathfrak{M}_{68}(1_2)$	$\{11, 17\}$	$e_1$												
$\mathfrak{M}_{77}(8_1)$	$d_1$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>xx</td><td>xx</td><td>x</td></tr> <tr><td>xx</td><td>xx</td><td>x</td></tr> <tr><td>x</td><td>x</td><td></td></tr> <tr><td>x</td><td>x</td><td></td></tr> </table>	xx	xx	x	xx	xx	x	x	x		x	x	
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$\mathfrak{M}_{77}(8_2)$	$d_1$	$d_2$												
$\mathfrak{M}_{78}(6_1)$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>xx</td><td>xx</td></tr> <tr><td></td><td>xx</td><td>xx</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> </table>		xx	xx		xx	xx	x	x	x	x	x	x	$e_2$
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$\mathfrak{M}_{88}(5_1)$	$e_2$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>x</td><td>xx</td><td>x</td></tr> <tr><td>xx</td><td>x</td><td></td></tr> <tr><td>xx</td><td>x</td><td></td></tr> </table>	x	xx	x	xx	x		xx	x				
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$\mathfrak{M}_{88}(5_2)$	$e_2$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>xx</td><td>xx</td></tr> <tr><td>x</td><td>xx</td><td>xx</td></tr> <tr><td></td><td>x</td><td>x</td></tr> <tr><td></td><td>x</td><td>x</td></tr> </table>		xx	xx	x	xx	xx		x	x		x	x
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$\mathfrak{M}_{88}(7_1)$	$e_2$	$e_4$												
$\mathfrak{M}_{88}(7_2)$	$e_1$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>x</td><td>x</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> <tr><td>x</td><td>x</td><td>x</td></tr> </table>		x	x	x	x	x	x	x	x	x	x	x
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## 2 Rank 3 geometries of $M_{22}$

**3 Theorem.** *Up to conjugacy in  $\text{Aut}G$  there are 1239 rank 3 residually connected geometries  $\Gamma = \Gamma(G, \{G_1, G_2, G_3\})$  with  $G_1, G_2, G_3 \in \mathfrak{M}$ . These together with the shape of  $G_{123}$  are listed in the following table below*

$\Gamma$	$G_{123}$		$\Gamma$	$G_{123}$
$\mathfrak{M}_{111}(0, 0, 0)$	$2^4 3$		$\mathfrak{M}_{112}(0, 0, 0)$	$S_4$
$\mathfrak{M}_{112}(0, 0, 1)$	$A_5$		$\mathfrak{M}_{112}(0, 1, 1)$	$2^4 A_4$
$\mathfrak{M}_{113}(0, 0, 0)$	$A_4$		$\mathfrak{M}_{113}(0, 0, 1)$	$S_4$
$\mathfrak{M}_{113}(0, 1, 1)$	$A_5$			
$\mathfrak{M}_{115}(0, 0, 0)$	$2^3$		$\mathfrak{M}_{115}(0, 0, 1)$	$A_4$
$\mathfrak{M}_{115}(0, 1, 1)$	$S_4$			
$\mathfrak{M}_{116}(0, 0, 0 : 1)$	$2^4 2$		$\mathfrak{M}_{116}(0, 0, 0 : 2)$	$S_3$
$\mathfrak{M}_{116}(0, 1, 0)$	$2^4 3$			
$\mathfrak{M}_{117}(0, 1, 0)$	$S_3$		$\mathfrak{M}_{117}(0, 0, 0)$	$Q_8$
$\mathfrak{M}_{118}(0, 1, 1)$	$S_3$		$\mathfrak{M}_{118}(0, 0, 1 : 1)$	$A_4$
$\mathfrak{M}_{118}(0, 0, 1 : 2)$	$D_{10}$			
$\mathfrak{M}_{122}(0, 0, 0)$	$3^2 4$		$\mathfrak{M}_{122}(0, 1, 0)$	$A_5$
$\mathfrak{M}_{122}(0, 0, 2)$	$D_8$		$\mathfrak{M}_{122}(1, 0, 2)$	$S_4$
$\mathfrak{M}_{122}(1, 1, 2)$	$2^2 A_4$			
$\mathfrak{M}_{123}(0, 0, 1)$	$S_3$		$\mathfrak{M}_{123}(0, 1, 1)$	$D_{10}$
$\mathfrak{M}_{123}(1, 0, 1)$	$A_4$		$\mathfrak{M}_{123}(0, 0, 3)$	$S_3$
$\mathfrak{M}_{123}(0, 1, 3)$	$3^2 2$		$\mathfrak{M}_{123}(1, 0, 3)$	$S_4$
$\mathfrak{M}_{123}(1, 1, 3)$	$S_4$			
$\mathfrak{M}_{125}(0, 0, 0)$	$S_4$		$\mathfrak{M}_{125}(0, 1, 0)$	$S_4$
$\mathfrak{M}_{125}(1, 0, 0)$	$2^2 D_8$		$\mathfrak{M}_{125}(0, 1, 2)$	4
$\mathfrak{M}_{125}(0, 0, 2 : 1)$	$S_3$		$\mathfrak{M}_{125}(0, 0, 2 : 2)$	$2^2$
$\mathfrak{M}_{125}(1, 0, 2)$	$S_3$		$\mathfrak{M}_{125}(1, 1, 2)$	$A_4$
$\mathfrak{M}_{125}(0, 0, 4)$	$D_8$		$\mathfrak{M}_{125}(0, 1, 4)$	$S_4$
$\mathfrak{M}_{125}(1, 1, 4)$	$S_4$		$\mathfrak{M}_{125}(1, 0, 4)$	$2^2 A_4$
$\mathfrak{M}_{126}(0, 0, 0 : 1)$	$S_3$		$\mathfrak{M}_{126}(0, 0, 0 : 2)$	$D_8$
$\mathfrak{M}_{126}(1, 0, 0)$	$2^3$		$\mathfrak{M}_{126}(0, 1, 0)$	$S_4$
$\mathfrak{M}_{126}(0, 0, 1)$	$2^2$		$\mathfrak{M}_{126}(1, 0, 1)$	$A_4$
$\mathfrak{M}_{126}(0, 0, 2)$	$S_4$		$\mathfrak{M}_{126}(1, 1, 2)$	$2^4 A_4$
$\mathfrak{M}_{127}(0, 0, 2)$	4		$\mathfrak{M}_{127}(1, 0, 2)$	$S_3$
$\mathfrak{M}_{127}(0, 0, 4)$	2		$\mathfrak{M}_{127}(0, 1, 4)$	2
$\mathfrak{M}_{127}(1, 1, 4)$	$2^2$		$\mathfrak{M}_{127}(1, 0, 4)$	$Q_8$
$\mathfrak{M}_{127}(0, 0, 6)$	$3^2 4$			
$\mathfrak{M}_{128}(0, 1, 1)$	$S_3$		$\mathfrak{M}_{128}(0, 0, 1)$	$D_{10}$
$\mathfrak{M}_{128}(1, 0, 1)$	$A_4$		$\mathfrak{M}_{128}(0, 1, 3 : 1)$	$S_3$
$\mathfrak{M}_{128}(0, 1, 3 : 2)$	2		$\mathfrak{M}_{128}(0, 0, 3 : 1)$	$S_3$
$\mathfrak{M}_{128}(0, 0, 3 : 2)$	2		$\mathfrak{M}_{128}(1, 0, 3)$	$2^2$

$\mathfrak{M}_{128}(1, 1, 3)$	$2^2$		
$\mathfrak{M}_{133}(0, 0, 1)$	4	$\mathfrak{M}_{133}(1, 0, 1)$	$S_3$
$\mathfrak{M}_{133}(0, 0, 3 : 1)$	$S_3$	$\mathfrak{M}_{133}(0, 0, 3 : 2)$	$D_8$
$\mathfrak{M}_{133}(0, 3, 1)$	$S_3$	$\mathfrak{M}_{133}(1, 1, 3)$	$D_8$
$\mathfrak{M}_{134}(0, 0, 0)$	$F_{21}$	$\mathfrak{M}_{134}(1, 0, 0)$	$S_4$
$\mathfrak{M}_{134}(0, 0, 2)$	2	$\mathfrak{M}_{134}(0, 1, 2)$	4
$\mathfrak{M}_{134}(1, 1, 2)$	$D_{10}$	$\mathfrak{M}_{134}(0, 0, 4)$	$S_3$
$\mathfrak{M}_{134}(1, 1, 4)$	$3^2 2$	$\mathfrak{M}_{134}(1, 0, 4)$	$S_4$
$\mathfrak{M}_{135}(0, 1, 0)$	$F_{21}$	$\mathfrak{M}_{135}(0, 0, 0)$	$S_4$
$\mathfrak{M}_{135}(1, 0, 0)$	$S_4$	$\mathfrak{M}_{135}(0, 1, 2)$	2
$\mathfrak{M}_{135}(0, 0, 2 : 1)$	2	$\mathfrak{M}_{135}(0, 0, 2 : 2)$	$2^2$
$\mathfrak{M}_{135}(1, 0, 2 : 1)$	$2^2$	$\mathfrak{M}_{135}(1, 0, 2 : 2)$	$S_3$
$\mathfrak{M}_{135}(1, 1, 2)$	$S_3$	$\mathfrak{M}_{135}(0, 0, 4 : 1)$	$D_8$
$\mathfrak{M}_{135}(0, 0, 4 : 2)$	3	$\mathfrak{M}_{135}(1, 1, 4)$	$S_3$
$\mathfrak{M}_{135}(0, 1, 4)$	$S_3$	$\mathfrak{M}_{135}(1, 0, 4)$	$D_8$
$\mathfrak{M}_{136}(0, 0, 0)$	2	$\mathfrak{M}_{136}(1, 0, 0)$	$S_3$
$\mathfrak{M}_{136}(0, 1, 1)$	$A_4$	$\mathfrak{M}_{136}(0, 0, 1 : 1)$	3
$\mathfrak{M}_{136}(0, 0, 1 : 2)$	$2^2$	$\mathfrak{M}_{136}(1, 0, 1)$	$2^2$
$\mathfrak{M}_{136}(0, 0, 2)$	$D_8$	$\mathfrak{M}_{136}(1, 0, 2)$	$S_4$
$\mathfrak{M}_{136}(1, 1, 2)$	$A_5$		
$\mathfrak{M}_{137}(0, 1, 2)$	2	$\mathfrak{M}_{137}(0, 0, 2)$	4
$\mathfrak{M}_{137}(1, 0, 2)$	4	$\mathfrak{M}_{137}(1, 1, 2)$	$D_{10}$
$\mathfrak{M}_{137}(0, 0, 4)$	1	$\mathfrak{M}_{137}(1, 0, 4)$	2
$\mathfrak{M}_{137}(0, 0, 6)$	4	$\mathfrak{M}_{137}(0, 1, 6)$	$S_3$
$\mathfrak{M}_{137}(1, 1, 6)$	$S_3$		
$\mathfrak{M}_{138}(0, 1, 2 : 1)$	2	$\mathfrak{M}_{138}(0, 1, 2 : 2)$	$2^2$
$\mathfrak{M}_{138}(0, 0, 2)$	2	$\mathfrak{M}_{138}(1, 0, 2 : 1)$	$2^2$
$\mathfrak{M}_{138}(1, 0, 2 : 2)$	$S_3$	$\mathfrak{M}_{138}(1, 1, 2)$	$S_3$
$\mathfrak{M}_{138}(0, 1, 4)$	1	$\mathfrak{M}_{138}(0, 0, 4 : 1)$	2
$\mathfrak{M}_{138}(0, 0, 4 : 2)$	3	$\mathfrak{M}_{138}(1, 0, 4)$	2
$\mathfrak{M}_{138}(0, 0, 6)$	$S_3$	$\mathfrak{M}_{138}(1, 1, 6)$	$D_{10}$
$\mathfrak{M}_{138}(0, 1, 6)$	$A_4$		
$\mathfrak{M}_{155}(0, 1, 0)$	$S_4$	$\mathfrak{M}_{155}(0, 0, 2)$	2
$\mathfrak{M}_{155}(0, 1, 2)$	2	$\mathfrak{M}_{155}(1, 1, 2)$	4
$\mathfrak{M}_{155}(0, 0, 4_1 : 1)$	3	$\mathfrak{M}_{155}(0, 0, 4_1 : 2)$	$2^2$
$\mathfrak{M}_{155}(1, 0, 4_1)$	3	$\mathfrak{M}_{155}(1, 1, 4_1)$	3
$\mathfrak{M}_{155}(0, 0, 4_2)$	$2^2$	$\mathfrak{M}_{155}(0, 1, 4_2)$	$D_8$

$\mathfrak{M}_{155}(1, 1, 4_2)$	$D_8$		
$\mathfrak{M}_{156}(0, 0, 0_1)$	$2^2 2^2$	$\mathfrak{M}_{156}(1, 0, 0_1)$	$S_4$
$\mathfrak{M}_{156}(0, 0, 0_2)$	2	$\mathfrak{M}_{156}(1, 0, 0_2)$	2
$\mathfrak{M}_{156}(0, 1, 0_2)$	$2^3$	$\mathfrak{M}_{156}(0, 0, 1)$	1
$\mathfrak{M}_{156}(1, 0, 1)$	3	$\mathfrak{M}_{156}(0, 0, 2 : 1)$	$S_3$
$\mathfrak{M}_{156}(0, 0, 2 : 2)$	$2^3$	$\mathfrak{M}_{156}(1, 0, 2)$	$2^3$
$\mathfrak{M}_{156}(1, 1, 2)$	$S_4$		
$\mathfrak{M}_{157}(1, 0, 2)$	4	$\mathfrak{M}_{157}(0, 0, 2)$	$S_3$
$\mathfrak{M}_{157}(0, 0, 4_1)$	4	$\mathfrak{M}_{157}(1, 0, 4_1)$	$S_3$
$\mathfrak{M}_{157}(0, 0, 4_2)$	1	$\mathfrak{M}_{157}(1, 0, 4_2)$	1
$\mathfrak{M}_{157}(1, 1, 4_2)$	1	$\mathfrak{M}_{157}(0, 1, 4_2 : 1)$	$S_3$
$\mathfrak{M}_{157}(0, 1, 4_2 : 2)$	2	$\mathfrak{M}_{157}(0, 0, 6)$	2
$\mathfrak{M}_{157}(1, 0, 6)$	4		
$\mathfrak{M}_{158}(0, 1, 2 : 1)$	2	$\mathfrak{M}_{158}(0, 1, 2 : 2)$	$2^2$
$\mathfrak{M}_{158}(1, 0, 2)$	2	$\mathfrak{M}_{158}(0, 0, 2)$	$2^2$
$\mathfrak{M}_{158}(1, 1, 2)$	$S_3$	$\mathfrak{M}_{158}(0, 1, 4_1 : 1)$	2
$\mathfrak{M}_{158}(0, 1, 4_1 : 2)$	1	$\mathfrak{M}_{158}(0, 0, 4_1 : 1)$	1
$\mathfrak{M}_{158}(0, 0, 4_1 : 2)$	2	$\mathfrak{M}_{158}(1, 1, 4_1)$	2
$\mathfrak{M}_{158}(1, 0, 4_1)$	2	$\mathfrak{M}_{158}(0, 1, 4_2)$	2
$\mathfrak{M}_{158}(0, 0, 4_2)$	2	$\mathfrak{M}_{158}(1, 1, 4_2)$	3
$\mathfrak{M}_{158}(1, 0, 4_2)$	3	$\mathfrak{M}_{158}(1, 1, 6)$	2
$\mathfrak{M}_{158}(0, 0, 6 : 1)$	$2^2$	$\mathfrak{M}_{158}(0, 0, 6 : 2)$	2
$\mathfrak{M}_{158}(0, 1, 6 : 1)$	$S_3$	$\mathfrak{M}_{158}(0, 1, 6 : 2)$	$2^2$
$\mathfrak{M}_{158}(1, 0, 6)$	$S_3$		
$\mathfrak{M}_{166}(0, 0, 0_1 : 1)$	$2^2$	$\mathfrak{M}_{166}(0, 0, 0_1 : 2)$	2
$\mathfrak{M}_{166}(1, 0, 0_1)$	$S_3$	$\mathfrak{M}_{166}(0, 0, 0_2)$	$2^2$
$\mathfrak{M}_{166}(0, 0, 1)$	3		
$\mathfrak{M}_{167}(0, 1, 0)$	2	$\mathfrak{M}_{167}(0, 0, 0)$	2
$\mathfrak{M}_{167}(1, 0, 0)$	$Q_8$	$\mathfrak{M}_{167}(0, 0, 1 : 1)$	2
$\mathfrak{M}_{167}(0, 0, 1 : 2)$	1	$\mathfrak{M}_{167}(0, 1, 2_1)$	2
$\mathfrak{M}_{167}(0, 0, 2_1)$	4	$\mathfrak{M}_{167}(1, 1, 2_1)$	$D_{10}$
$\mathfrak{M}_{167}(0, 0, 2_2)$	4		
$\mathfrak{M}_{168}(0, 0, 1_1)$	2	$\mathfrak{M}_{168}(0, 1, 1_1)$	2
$\mathfrak{M}_{168}(0, 0, 1_2)$	2	$\mathfrak{M}_{168}(0, 1, 1_2)$	2
$\mathfrak{M}_{168}(0, 0, 0 : 1)$	2	$\mathfrak{M}_{168}(0, 0, 0 : 2)$	$2^2$
$\mathfrak{M}_{168}(0, 1, 0 : 1)$	2	$\mathfrak{M}_{168}(0, 1, 0 : 2)$	$2^2$
$\mathfrak{M}_{168}(0, 1, 0 : 3)$	$S_3$	$\mathfrak{M}_{168}(1, 0, 0)$	$S_3$

$\mathfrak{M}_{168}(0, 0, 2 : 1)$	2	$\mathfrak{M}_{168}(0, 0, 2 : 2)$	$2^2$
$\mathfrak{M}_{168}(0, 1, 2 : 1)$	2	$\mathfrak{M}_{168}(0, 1, 2 : 2)$	$2^2$
		$\mathfrak{M}_{168}(1, 0, 2)$	$S_3$
$\mathfrak{M}_{177}(0, 1, 4)$	2	$\mathfrak{M}_{177}(1, 1, 4)$	$2^2$
$\mathfrak{M}_{177}(0, 0, 4)$	$Q_8$	$\mathfrak{M}_{177}(0, 0, 6)$	1
$\mathfrak{M}_{177}(0, 0, 8_1)$	1	$\mathfrak{M}_{177}(1, 0, 8_1)$	1
$\mathfrak{M}_{177}(1, 1, 8_1 : 1)$	1	$\mathfrak{M}_{177}(1, 1, 8_1 : 2)$	2
$\mathfrak{M}_{177}(1, 1, 8_2)$	4		
$\mathfrak{M}_{178}(0, 0, 6_1)$	2	$\mathfrak{M}_{178}(0, 1, 6_1)$	2
$\mathfrak{M}_{178}(0, 0, 6_2)$	1	$\mathfrak{M}_{178}(0, 1, 6_2)$	1
$\mathfrak{M}_{178}(0, 0, 8)$	1	$\mathfrak{M}_{178}(0, 1, 8)$	2
$\mathfrak{M}_{178}(0, 1, 4)$	1	$\mathfrak{M}_{178}(0, 0, 4)$	2
$\mathfrak{M}_{188}(1, 0, 3)$	2	$\mathfrak{M}_{188}(0, 0, 3)$	$2^2$
$\mathfrak{M}_{188}(1, 1, 3)$	$2^2$	$\mathfrak{M}_{188}(0, 0, 5_1)$	1
$\mathfrak{M}_{188}(1, 0, 5_1)$	1	$\mathfrak{M}_{188}(0, 1, 5_1)$	1
$\mathfrak{M}_{188}(1, 1, 5_1)$	1	$\mathfrak{M}_{188}(0, 0, 5_2)$	2
$\mathfrak{M}_{188}(1, 0, 5_2)$	2	$\mathfrak{M}_{188}(1, 1, 5_2)$	2
$\mathfrak{M}_{188}(0, 0, 7_1 : 1)$	1	$\mathfrak{M}_{188}(0, 0, 7_1 : 2)$	2
$\mathfrak{M}_{188}(1, 1, 7_1 : 1)$	1	$\mathfrak{M}_{188}(1, 1, 7_1 : 2)$	2
$\mathfrak{M}_{188}(1, 0, 7_1)$	2	$\mathfrak{M}_{188}(1, 1, 7_2)$	2
$\mathfrak{M}_{188}(0, 0, 7_2)$	2	$\mathfrak{M}_{188}(1, 0, 7_2)$	3
*****	****	*****	****
$\mathfrak{M}_{222}(0, 2, 2)$	$D_8$	$\mathfrak{M}_{222}(0, 0, 2)$	$S_4$
$\mathfrak{M}_{222}(2, 2, 2 : 1)$	3	$\mathfrak{M}_{222}(2, 2, 2 : 2)$	$2^2 2$
$\mathfrak{M}_{223}(0, 3, 1)$	$S_3$	$\mathfrak{M}_{223}(0, 1, 1)$	$D_{10}$
$\mathfrak{M}_{223}(0, 3, 3)$	$3^2 2$	$\mathfrak{M}_{223}(2, 3, 1 : 1)$	2
$\mathfrak{M}_{223}(2, 3, 1 : 2)$	$S_3$	$\mathfrak{M}_{223}(2, 3, 3 : 1)$	$S_3$
$\mathfrak{M}_{223}(2, 3, 3 : 2)$	$2^2$	$\mathfrak{M}_{223}(2, 1, 1)$	$2^2$
$\mathfrak{M}_{225}(0, 2, 2)$	2	$\mathfrak{M}_{225}(0, 4, 2)$	$D_8$
$\mathfrak{M}_{225}(0, 0, 4)$	$S_4$	$\mathfrak{M}_{225}(2, 2, 2 : 1)$	1
$\mathfrak{M}_{225}(2, 2, 2 : 2)$	2	$\mathfrak{M}_{225}(2, 2, 4)$	3
$\mathfrak{M}_{225}(2, 2, 0)$	$2^2$	$\mathfrak{M}_{225}(2, 4, 4)$	$2^3$
$\mathfrak{M}_{225}(2, 0, 0)$	$2^4 2$		
$\mathfrak{M}_{226}(0, 0, 1)$	$S_3$	$\mathfrak{M}_{226}(0, 0, 0)$	$D_8$
$\mathfrak{M}_{226}(0, 0, 2)$	$S_4$	$\mathfrak{M}_{226}(2, 1, 0)$	2
$\mathfrak{M}_{226}(2, 0, 0 : 1)$	2	$\mathfrak{M}_{226}(2, 0, 0 : 2)$	$2^3$
$\mathfrak{M}_{226}(2, 1, 2)$	$A_4$	$\mathfrak{M}_{226}(2, 0, 2)$	$2 \times D_8$
$\mathfrak{M}_{227}(2, 4, 4 : 1)$	$2^2$	$\mathfrak{M}_{227}(2, 4, 4 : 2)$	1
$\mathfrak{M}_{227}(2, 4, 2)$	1	$\mathfrak{M}_{227}(2, 6, 4)$	$D_8$

$\mathfrak{M}_{227}(0, 4, 2)$	2	$\mathfrak{M}_{227}(0, 4, 4)$	2
$\mathfrak{M}_{228}(0, 3, 3)$	2	$\mathfrak{M}_{228}(0, 3, 5)$	$S_3$
$\mathfrak{M}_{228}(0, 3, 1)$	$S_3$	$\mathfrak{M}_{228}(0, 1, 5)$	$D_{10}$
$\mathfrak{M}_{228}(2, 3, 3 : 1)$	1	$\mathfrak{M}_{228}(2, 3, 3 : 2)$	2
$\mathfrak{M}_{228}(2, 3, 3 : 3)$	$2^2$	$\mathfrak{M}_{228}(2, 3, 5 : 1)$	2
$\mathfrak{M}_{228}(2, 3, 5 : 2)$	$2^2$	$\mathfrak{M}_{228}(2, 1, 3 : 1)$	2
$\mathfrak{M}_{228}(2, 1, 3 : 2)$	$2^2$	$\mathfrak{M}_{228}(2, 5, 5)$	$S_3$
$\mathfrak{M}_{228}(2, 1, 1)$	$S_3$	$\mathfrak{M}_{228}(2, 5, 1)$	$A_4$
$\mathfrak{M}_{233}(3, 1, 1)$	2	$\mathfrak{M}_{233}(3, 3, 3 : 1)$	2
$\mathfrak{M}_{233}(3, 3, 3 : 2)$	$2^2$	$\mathfrak{M}_{233}(3, 3, 1)$	4
$\mathfrak{M}_{233}(3, 1, 3)$	$S_3$	$\mathfrak{M}_{233}(1, 1, 1)$	2
$\mathfrak{M}_{233}(1, 1, 3 : 1)$	3	$\mathfrak{M}_{233}(1, 1, 3 : 2)$	2
$\mathfrak{M}_{234}(3, 1, 2)$	2	$\mathfrak{M}_{234}(3, 3, 2 : 1)$	2
$\mathfrak{M}_{234}(3, 3, 2 : 2)$	4	$\mathfrak{M}_{234}(3, 3, 4)$	$2^2$
$\mathfrak{M}_{234}(3, 1, 0)$	$S_3$	$\mathfrak{M}_{234}(3, 1, 4)$	$S_3$
$\mathfrak{M}_{234}(1, 1, 2)$	1	$\mathfrak{M}_{234}(1, 1, 4)$	$2^2$
$\mathfrak{M}_{235}(3, 2, 2 : 1)$	1	$\mathfrak{M}_{235}(3, 2, 2 : 2)$	2
$\mathfrak{M}_{235}(3, 2, 4)$	2	$\mathfrak{M}_{235}(3, 4, 4 : 1)$	$2^2$
$\mathfrak{M}_{235}(3, 4, 4 : 2)$	$S_3$	$\mathfrak{M}_{235}(3, 4, 2)$	$2^2$
$\mathfrak{M}_{235}(3, 0, 2)$	$2^2$	$\mathfrak{M}_{235}(3, 2, 0)$	$S_3$
$\mathfrak{M}_{235}(3, 0, 0)$	$S_4$	$\mathfrak{M}_{235}(1, 2, 2)$	1
$\mathfrak{M}_{235}(1, 4, 2 : 1)$	1	$\mathfrak{M}_{235}(1, 4, 2 : 2)$	$2^2$
$\mathfrak{M}_{235}(1, 2, 4)$	2	$\mathfrak{M}_{235}(1, 0, 4)$	$2^2$
$\mathfrak{M}_{235}(1, 0, 2)$	$2^2$	$\mathfrak{M}_{235}(1, 2, 0)$	$S_3$
$\mathfrak{M}_{235}(1, 4, 4)$	$S_3$	$\mathfrak{M}_{235}(1, 4, 0)$	$A_4$
$\mathfrak{M}_{236}(3, 0, 1)$	2	$\mathfrak{M}_{236}(3, 0, 0 : 1)$	2
$\mathfrak{M}_{236}(3, 0, 0 : 2)$	$2^2$	$\mathfrak{M}_{236}(3, 0, 0 : 3)$	$S_3$
$\mathfrak{M}_{236}(3, 1, 2)$	$S_3$	$\mathfrak{M}_{236}(3, 2, 1)$	$D_8$
$\mathfrak{M}_{236}(3, 0, 2)$	$D_{12}$	$\mathfrak{M}_{236}(3, 2, 2)$	$S_4$
$\mathfrak{M}_{236}(1, 0, 1)$	2	$\mathfrak{M}_{236}(1, 0, 0 : 1)$	2
$\mathfrak{M}_{236}(1, 0, 0 : 2)$	$2^2$	$\mathfrak{M}_{236}(1, 1, 0 : 1)$	2
$\mathfrak{M}_{236}(1, 1, 0 : 2)$	3	$\mathfrak{M}_{236}(1, 0, 2)$	$2^2$
$\mathfrak{M}_{237}(3, 4, 4 : 1)$	1	$\mathfrak{M}_{237}(3, 4, 4 : 2)$	2
$\mathfrak{M}_{237}(3, 4, 2 : 1)$	2	$\mathfrak{M}_{237}(3, 4, 2 : 2)$	4
$\mathfrak{M}_{237}(3, 2, 2)$	2	$\mathfrak{M}_{237}(3, 6, 6)$	$3^2 2$
$\mathfrak{M}_{237}(1, 4, 2 : 1)$	1	$\mathfrak{M}_{237}(1, 4, 2 : 2)$	2
$\mathfrak{M}_{237}(1, 4, 4 : 1)$	1	$\mathfrak{M}_{237}(1, 4, 4 : 2)$	2
$\mathfrak{M}_{237}(1, 4, 6)$	2	$\mathfrak{M}_{237}(1, 2, 6)$	2
$\mathfrak{M}_{237}(1, 2, 2)$	2	$\mathfrak{M}_{237}(1, 6, 2)$	$D_{10}$

$\mathfrak{M}_{238}(3, 3, 4 : 1)$	1	$\mathfrak{M}_{238}(3, 3, 4 : 2)$	2
$\mathfrak{M}_{238}(3, 3, 2 : 1)$	1	$\mathfrak{M}_{238}(3, 3, 2 : 2)$	2
$\mathfrak{M}_{238}(3, 3, 2 : 3)$	$2^2$	$\mathfrak{M}_{238}(3, 1, 2 : 1)$	2
$\mathfrak{M}_{238}(3, 1, 2 : 2)$	$S_3$	$\mathfrak{M}_{238}(3, 1, 4)$	2
$\mathfrak{M}_{238}(3, 3, 6)$	$2^2$	$\mathfrak{M}_{238}(3, 5, 6)$	$S_3$
$\mathfrak{M}_{238}(1, 1, 4)$	1	$\mathfrak{M}_{238}(1, 3, 2 : 1)$	1
$\mathfrak{M}_{238}(1, 3, 2 : 2)$	2	$\mathfrak{M}_{238}(1, 3, 4 : 1)$	1
$\mathfrak{M}_{238}(1, 3, 4 : 2)$	2	$\mathfrak{M}_{238}(1, 5, 2)$	2
$\mathfrak{M}_{238}(1, 3, 6)$	2	$\mathfrak{M}_{238}(1, 5, 4)$	2
$\mathfrak{M}_{238}(1, 1, 2)$	$2^2$		
$\mathfrak{M}_{255}(2, 2, 4_1 : 1)$	1	$\mathfrak{M}_{255}(2, 2, 4_1 : 2)$	2
$\mathfrak{M}_{255}(2, 2, 2)$	1	$\mathfrak{M}_{255}(0, 2, 4_1)$	2
$\mathfrak{M}_{255}(2, 4, 4_1)$	2	$\mathfrak{M}_{255}(0, 2, 2)$	2
$\mathfrak{M}_{255}(4, 4, 4_1)$	3	$\mathfrak{M}_{255}(2, 2, 0)$	$2^2$
$\mathfrak{M}_{255}(2, 2, 4_2)$	$2^2$	$\mathfrak{M}_{255}(2, 4, 4_2)$	$2^2$
$\mathfrak{M}_{255}(4, 0, 2)$	$2^2$	$\mathfrak{M}_{255}(4, 4, 4_2)$	$2^3$
$\mathfrak{M}_{255}(0, 0, 4_2)$	$2^4$	$\mathfrak{M}_{255}(4, 0, 0)$	$2^4 2$
$\mathfrak{M}_{256}(0, 0, 1)$	3	$\mathfrak{M}_{256}(0, 1, 0_2)$	$2^2$
$\mathfrak{M}_{256}(0, 0, 2)$	$2^3$	$\mathfrak{M}_{256}(0, 0, 0_2)$	$2^3$
$\mathfrak{M}_{256}(0, 2, 0_1)$	$2^4 2^2$	$\mathfrak{M}_{256}(2, 0, 1 : 1)$	1
$\mathfrak{M}_{256}(2, 0, 1 : 2)$	2	$\mathfrak{M}_{256}(2, 1, 0_2)$	2
$\mathfrak{M}_{256}(2, 1, 2)$	2	$\mathfrak{M}_{256}(2, 0, 2)$	2
$\mathfrak{M}_{256}(2, 2, 1)$	3	$\mathfrak{M}_{256}(2, 2, 0_2)$	$2^2$
$\mathfrak{M}_{256}(2, 1, 0_1)$	$S_3$	$\mathfrak{M}_{256}(2, 0, 0_1)$	$D_8$
$\mathfrak{M}_{256}(4, 0, 1)$	2	$\mathfrak{M}_{256}(4, 1, 0_1)$	$2^2$
$\mathfrak{M}_{256}(4, 1, 2)$	$S_3$	$\mathfrak{M}_{256}(4, 2, 2)$	$2^2 2^2$
$\mathfrak{M}_{257}(0, 4, 4_2)$	1	$\mathfrak{M}_{257}(0, 2, 4_2)$	2
$\mathfrak{M}_{257}(0, 4, 6)$	$2^2$	$\mathfrak{M}_{257}(0, 4, 2)$	$2^2$
$\mathfrak{M}_{257}(2, 4, 2)$	1	$\mathfrak{M}_{257}(2, 4, 4_2)$	1
$\mathfrak{M}_{257}(2, 4, 6 : 1)$	1	$\mathfrak{M}_{257}(2, 4, 6 : 2)$	2
$\mathfrak{M}_{257}(2, 4, 4_1 : 1)$	1	$\mathfrak{M}_{257}(2, 4, 4_1 : 2)$	2
$\mathfrak{M}_{257}(2, 2, 4_2 : 1)$	1	$\mathfrak{M}_{257}(2, 2, 4_2 : 2)$	2
$\mathfrak{M}_{257}(2, 6, 4_2)$	2	$\mathfrak{M}_{257}(4, 2, 4_2)$	1
$\mathfrak{M}_{257}(4, 4, 4_2)$	1	$\mathfrak{M}_{257}(4, 4, 6)$	1
$\mathfrak{M}_{257}(4, 4, 4_1)$	3	$\mathfrak{M}_{257}(4, 4, 2)$	$D_8$
$\mathfrak{M}_{258}(0, 3, 4_2 : 1)$	3	$\mathfrak{M}_{258}(0, 3, 4_2 : 2)$	$2^2$
$\mathfrak{M}_{258}(0, 1, 6)$	$2^2$	$\mathfrak{M}_{258}(0, 5, 2)$	$2^2$
$\mathfrak{M}_{258}(0, 3, 2)$	$2^2$	$\mathfrak{M}_{258}(0, 3, 6)$	$2^2$
$\mathfrak{M}_{258}(2, 3, 2 : 1)$	1	$\mathfrak{M}_{258}(2, 3, 2 : 2)$	2

$\mathfrak{M}_{258}(2, 3, 4_1)$	1	$\mathfrak{M}_{258}(2, 5, 4_1)$	1
$\mathfrak{M}_{258}(2, 1, 4_1)$	1	$\mathfrak{M}_{258}(2, 3, 4_2 : 1)$	1
$\mathfrak{M}_{258}(2, 3, 4_2 : 2)$	2	$\mathfrak{M}_{258}(2, 3, 6 : 1)$	1
$\mathfrak{M}_{258}(2, 3, 6 : 2)$	2	$\mathfrak{M}_{258}(2, 1, 4_2 : 1)$	2
$\mathfrak{M}_{258}(2, 1, 4_2 : 2)$	2	$\mathfrak{M}_{258}(2, 5, 4_2 : 1)$	2
$\mathfrak{M}_{258}(2, 5, 4_2 : 2)$	3	$\mathfrak{M}_{258}(2, 5, 2)$	2
$\mathfrak{M}_{258}(2, 1, 6)$	2	$\mathfrak{M}_{258}(2, 5, 6 : 1)$	2
$\mathfrak{M}_{258}(2, 5, 6 : 2)$	2	$\mathfrak{M}_{258}(2, 1, 2)$	2
$\mathfrak{M}_{258}(4, 3, 4_1 : 1)$	1	$\mathfrak{M}_{258}(4, 3, 4_1 : 2)$	2
$\mathfrak{M}_{258}(4, 3, 4_2)$	1	$\mathfrak{M}_{258}(4, 1, 4_1)$	2
$\mathfrak{M}_{258}(4, 5, 4_1)$	2	$\mathfrak{M}_{258}(4, 3, 6 : 1)$	2
$\mathfrak{M}_{258}(4, 3, 6 : 2)$	$2^2$	$\mathfrak{M}_{258}(4, 3, 2 : 1)$	2
$\mathfrak{M}_{258}(4, 3, 2 : 2)$	$2^2$	$\mathfrak{M}_{258}(4, 5, 6)$	$2^2$
$\mathfrak{M}_{258}(4, 1, 2)$	$S_3$		
$\mathfrak{M}_{266}(1, 1, 0_1)$	1	$\mathfrak{M}_{266}(0, 0, 0_1)$	1
$\mathfrak{M}_{266}(0, 1, 0_2)$	2	$\mathfrak{M}_{266}(0, 0, 1)$	3
$\mathfrak{M}_{266}(1, 1, 0_2)$	$2^2$	$\mathfrak{M}_{266}(2, 0, 0_1)$	$2^2$
$\mathfrak{M}_{266}(1, 0, 0_2)$	$2^2$	$\mathfrak{M}_{266}(0, 0, 1)$	$2^2$
$\mathfrak{M}_{266}(1, 2, 0_1)$	$2^2$	$\mathfrak{M}_{266}(2, 0, 0_2)$	$2 \times D_8$
$\mathfrak{M}_{266}(2, 0, 0_1)$	$2^2$		
$\mathfrak{M}_{267}(0, 4, 0 : 1)$	1	$\mathfrak{M}_{267}(0, 4, 0 : 2)$	2
$\mathfrak{M}_{267}(0, 4, 1)$	1	$\mathfrak{M}_{267}(0, 4, 2_1)$	1
$\mathfrak{M}_{267}(0, 2, 2_1)$	2	$\mathfrak{M}_{267}(0, 2, 0 : 1)$	2
$\mathfrak{M}_{267}(0, 2, 0 : 2)$	$D_8$	$\mathfrak{M}_{267}(0, 6, 0)$	$D_8$
$\mathfrak{M}_{267}(0, 4, 2_2)$	2	$\mathfrak{M}_{267}(1, 2, 0)$	1
$\mathfrak{M}_{267}(1, 4, 2_2)$	1	$\mathfrak{M}_{267}(1, 4, 0)$	1
$\mathfrak{M}_{267}(1, 4, 2_1)$	2	$\mathfrak{M}_{267}(1, 2, 2_1)$	2
$\mathfrak{M}_{267}(1, 6, 2_1)$	$D_{10}$	$\mathfrak{M}_{267}(2, 4, 1)$	2
$\mathfrak{M}_{267}(2, 2, 0)$	$2^2$	$\mathfrak{M}_{267}(2, 4, 2_1)$	4
$\mathfrak{M}_{267}(2, 4, 2_2)$	$D_8$		
$\mathfrak{M}_{268}(0, 3, 2)$	1	$\mathfrak{M}_{268}(0, 3, 0)$	1
$\mathfrak{M}_{268}(0, 5, 1_1)$	2	$\mathfrak{M}_{268}(0, 1, 1_1)$	2
$\mathfrak{M}_{268}(0, 1, 2)$	2	$\mathfrak{M}_{268}(0, 5, 0 : 1)$	2
$\mathfrak{M}_{268}(0, 5, 0 : 2)$	$2^2$	$\mathfrak{M}_{268}(0, 3, 1_1)$	2
$\mathfrak{M}_{268}(0, 5, 2)$	$2^2$	$\mathfrak{M}_{268}(0, 1, 0)$	$2^2$
$\mathfrak{M}_{268}(1, 3, 0 : 1)$	1	$\mathfrak{M}_{268}(1, 3, 0 : 2)$	2
$\mathfrak{M}_{268}(1, 3, 2 : 1)$	1	$\mathfrak{M}_{268}(1, 3, 2 : 2)$	2
$\mathfrak{M}_{268}(1, 5, 2)$	2	$\mathfrak{M}_{268}(1, 1, 0)$	2
$\mathfrak{M}_{268}(2, 3, 1_1)$	2	$\mathfrak{M}_{268}(2, 3, 0)$	$2^2$



$\mathfrak{M}_{268}(2, 3, 2)$	$2^2$	$\mathfrak{M}_{268}(2, 3, 1_2)$	$2^2$
$\mathfrak{M}_{268}(2, 5, 2)$	$S_3$	$\mathfrak{M}_{268}(2, 1, 0)$	$S_3$
$\mathfrak{M}_{277}(4, 4, 8_2)$	1	$\mathfrak{M}_{277}(2, 2, 8_1 : 1)$	1
$\mathfrak{M}_{277}(2, 2, 8_1 : 2)$	2	$\mathfrak{M}_{277}(4, 2, 8_1 : 1)$	1
$\mathfrak{M}_{277}(4, 2, 8_1 : 2)$	2	$\mathfrak{M}_{277}(4, 4, 8_1)$	1
$\mathfrak{M}_{277}(2, 4, 4)$	1	$\mathfrak{M}_{277}(4, 4, 6)$	1
$\mathfrak{M}_{277}(4, 4, 4)$	1	$\mathfrak{M}_{277}(4, 6, 8_1)$	2
$\mathfrak{M}_{277}(2, 2, 8_1)$	2	$\mathfrak{M}_{277}(2, 2, 4)$	$2^2$
$\mathfrak{M}_{277}(2, 6, 4)$	$D_8$		
$\mathfrak{M}_{278}(4, 1, 4 : 1)$	1	$\mathfrak{M}_{278}(4, 1, 4 : 2)$	2
$\mathfrak{M}_{278}(4, 3, 4)$	1	$\mathfrak{M}_{278}(4, 1, 6_2)$	1
$\mathfrak{M}_{278}(4, 3, 6_2)$	1	$\mathfrak{M}_{278}(4, 3, 6_1)$	1
$\mathfrak{M}_{278}(4, 3, 8 : 1)$	1	$\mathfrak{M}_{278}(4, 3, 8 : 2)$	2
$\mathfrak{M}_{278}(4, 5, 6_2)$	1	$\mathfrak{M}_{278}(4, 5, 8 : 1)$	1
$\mathfrak{M}_{278}(4, 5, 8 : 2)$	2	$\mathfrak{M}_{278}(4, 1, 8)$	2
$\mathfrak{M}_{278}(4, 1, 6_1)$	2	$\mathfrak{M}_{278}(4, 5, 4)$	2
$\mathfrak{M}_{278}(4, 5, 6_1)$	2	$\mathfrak{M}_{278}(4, 3, 4)$	2
$\mathfrak{M}_{288}(3, 5, 5_1)$	1	$\mathfrak{M}_{288}(3, 3, 5_1)$	1
$\mathfrak{M}_{288}(5, 1, 5_1)$	1	$\mathfrak{M}_{288}(3, 3, 3)$	1
$\mathfrak{M}_{288}(1, 3, 5_1)$	1	$\mathfrak{M}_{288}(3, 3, 5_2)$	1
$\mathfrak{M}_{288}(3, 3, 7_1)$	1	$\mathfrak{M}_{288}(3, 5, 7_1 : 1)$	1
$\mathfrak{M}_{288}(3, 5, 7_1 : 2)$	2	$\mathfrak{M}_{288}(3, 3, 7_2)$	1
$\mathfrak{M}_{288}(3, 5, 7_2)$	2	$\mathfrak{M}_{288}(5, 5, 7_1)$	2
$\mathfrak{M}_{288}(1, 3, 7_1 : 1)$	1	$\mathfrak{M}_{288}(1, 3, 7_1 : 2)$	2
$\mathfrak{M}_{288}(1, 3, 5_2)$	2	$\mathfrak{M}_{288}(5, 3, 5_2)$	2
$\mathfrak{M}_{288}(3, 5, 3)$	2	$\mathfrak{M}_{288}(3, 1, 3)$	2
$\mathfrak{M}_{288}(1, 3, 7_2)$	2	$\mathfrak{M}_{288}(5, 5, 7_2)$	3
$\mathfrak{M}_{288}(1, 1, 7_2)$	3	$\mathfrak{M}_{288}(1, 5, 3)$	$2^2$
*****	***	*****	***
$\mathfrak{M}_{333}(1, 1, 3 : 1)$	1	$\mathfrak{M}_{333}(1, 1, 3 : 2)$	$S_3$
$\mathfrak{M}_{333}(1, 1, 1)$	2	$\mathfrak{M}_{333}(3, 1, 3)$	2
$\mathfrak{M}_{333}(3, 3, 3 : 1)$	1	$\mathfrak{M}_{333}(3, 3, 3 : 2)$	2
$\mathfrak{M}_{334}(3, 2, 2 : 1)$	1	$\mathfrak{M}_{334}(3, 2, 2 : 2)$	2
$\mathfrak{M}_{334}(1, 2, 2 : 1)$	1	$\mathfrak{M}_{334}(1, 2, 2 : 2)$	2
$\mathfrak{M}_{334}(3, 2, 4)$	2	$\mathfrak{M}_{334}(1, 2, 4 : 1)$	2
$\mathfrak{M}_{334}(1, 2, 4 : 2)$	4	$\mathfrak{M}_{334}(3, 2, 0)$	2
$\mathfrak{M}_{334}(1, 2, 0)$	4	$\mathfrak{M}_{334}(3, 4, 4 : 1)$	$2^2$
$\mathfrak{M}_{334}(3, 4, 4 : 2)$	$S_3$	$\mathfrak{M}_{334}(1, 4, 0)$	$S_3$
$\mathfrak{M}_{334}(3, 0, 0)$	$A_4$	$\mathfrak{M}_{334}(1, 4, 4)$	$3^2 2$

$\mathfrak{M}_{335}(1, 2, 2)$	1	$\mathfrak{M}_{335}(1, 2, 4 : 1)$	1
$\mathfrak{M}_{335}(1, 2, 4, : 2)$	2	$\mathfrak{M}_{335}(3, 4, 2 : 1)$	1
$\mathfrak{M}_{335}(3, 4, 2 : 2)$	2	$\mathfrak{M}_{335}(3, 4, 4 : 1)$	1
$\mathfrak{M}_{335}(3, 4, 4 : 2)$	2	$\mathfrak{M}_{335}(3, 0, 2)$	2
$\mathfrak{M}_{335}(1, 4, 4)$	2		
$\mathfrak{M}_{335}(1, 2, 0)$	$S_3$	$\mathfrak{M}_{335}(3, 2, 2)$	1
$\mathfrak{M}_{335}(1, 0, 4)$	4		
$\mathfrak{M}_{336}(3, 0, 1 : 1)$	1	$\mathfrak{M}_{336}(3, 0, 1 : 2)$	2
$\mathfrak{M}_{336}(1, 1, 0 : 1)$	1	$\mathfrak{M}_{336}(1, 1, 0 : 2)$	2
$\mathfrak{M}_{336}(1, 0, 0)$	2	$\mathfrak{M}_{336}(3, 0, 0)$	1
$\mathfrak{M}_{336}(3, 2, 1)$	2	$\mathfrak{M}_{336}(3, 2, 0)$	$2^2$
$\mathfrak{M}_{336}(1, 2, 0 : 1)$	4	$\mathfrak{M}_{336}(1, 2, 0 : 2)$	$S_3$
$\mathfrak{M}_{336}(3, 2, 2)$	$D_8$		
$\mathfrak{M}_{337}(3, 4, 2 : 1)$	1	$\mathfrak{M}_{337}(3, 4, 2 : 2)$	2
$\mathfrak{M}_{337}(3, 6, 4 : 1)$	1	$\mathfrak{M}_{337}(3, 6, 4 : 2)$	2
$\mathfrak{M}_{337}(3, 2, 2 : 1)$	1	$\mathfrak{M}_{337}(3, 2, 2 : 2)$	2
$\mathfrak{M}_{337}(1, 4, 2 : 1)$	1	$\mathfrak{M}_{337}(1, 4, 2 : 2)$	2
$\mathfrak{M}_{337}(1, 6, 2)$	2	$\mathfrak{M}_{337}(3, 6, 6)$	2
$\mathfrak{M}_{337}(1, 6, 4)$	1	$\mathfrak{M}_{337}(3, 6, 2)$	4
$\mathfrak{M}_{337}(1, 2, 2)$	4		
$\mathfrak{M}_{338}(3, 2, 4 : 1)$	1	$\mathfrak{M}_{338}(3, 2, 4 : 2)$	2
$\mathfrak{M}_{338}(1, 4, 4)$	1	$\mathfrak{M}_{338}(3, 4, 4)$	1
$\mathfrak{M}_{338}(3, 2, 2 : 1)$	1	$\mathfrak{M}_{338}(3, 2, 2 : 2)$	2
$\mathfrak{M}_{338}(1, 2, 4 : 1)$	1	$\mathfrak{M}_{338}(1, 2, 4 : 2)$	2
$\mathfrak{M}_{338}(1, 2, 2)$	2	$\mathfrak{M}_{338}(1, 6, 4)$	2
$\mathfrak{M}_{338}(3, 4, 6)$	2	$\mathfrak{M}_{338}(1, 2, 6)$	2
$\mathfrak{M}_{338}(3, 6, 2)$	$2^2$	$\mathfrak{M}_{338}(3, 6, 6)$	$S_3$
$\mathfrak{M}_{345}(2, 2, 2)$	1	$\mathfrak{M}_{345}(2, 2, 4 : 1)$	1
$\mathfrak{M}_{345}(2, 2, 4 : 2)$	2	$\mathfrak{M}_{345}(2, 4, 4 : 1)$	1
$\mathfrak{M}_{345}(2, 4, 4 : 2)$	2	$\mathfrak{M}_{345}(4, 2, 2)$	1
$\mathfrak{M}_{345}(4, 4, 4)$	2	$\mathfrak{M}_{345}(0, 4, 2)$	2
$\mathfrak{M}_{345}(0, 2, 2)$	2	$\mathfrak{M}_{345}(4, 2, 4)$	2
$\mathfrak{M}_{345}(2, 4, 0)$	4	$\mathfrak{M}_{345}(4, 0, 2)$	$S_3$
$\mathfrak{M}_{345}(0, 0, 4)$	$A_4$	$\mathfrak{M}_{345}(4, 0, 0)$	$S_4$
$\mathfrak{M}_{346}(4, 0, 0)$	2	$\mathfrak{M}_{346}(4, 1, 2)$	$S_3$
$\mathfrak{M}_{346}(4, 2, 2)$	$D_{12}$	$\mathfrak{M}_{346}(0, 0, 1)$	2
$\mathfrak{M}_{346}(0, 0, 0)$	$S_3$	$\mathfrak{M}_{346}(0, 2, 0)$	$D_8$
$\mathfrak{M}_{346}(2, 0, 0 : 1)$	1	$\mathfrak{M}_{346}(2, 0, 0 : 2)$	2

$\mathfrak{M}_{346}(2, 1, 0 : 1)$	1	$\mathfrak{M}_{346}(2, 1, 0 : 2)$	2
$\mathfrak{M}_{346}(2, 2, 1)$	2	$\mathfrak{M}_{346}(2, 2, 0)$	2
$\mathfrak{M}_{347}(4, 2, 4)$	2	$\mathfrak{M}_{347}(4, 6, 4)$	2
$\mathfrak{M}_{347}(4, 2, 2 : 1)$	2	$\mathfrak{M}_{347}(4, 2, 2 : 2)$	4
$\mathfrak{M}_{347}(4, 6, 6)$	4	$\mathfrak{M}_{347}(0, 2, 4)$	2
$\mathfrak{M}_{347}(0, 2, 6)$	4	$\mathfrak{M}_{347}(2, 6, 4 : 1)$	1
$\mathfrak{M}_{347}(2, 6, 4 : 2)$	2	$\mathfrak{M}_{347}(2, 2, 4 : 1)$	1
$\mathfrak{M}_{347}(2, 2, 4 : 2)$	2	$\mathfrak{M}_{347}(2, 2, 2)$	1
$\mathfrak{M}_{347}(2, 6, 2)$	2	$\mathfrak{M}_{347}(2, 6, 6)$	4
$\mathfrak{M}_{348}(4, 4, 5 : 1)$	1	$\mathfrak{M}_{348}(4, 4, 5 : 2)$	2
$\mathfrak{M}_{348}(4, 2, 3 : 1)$	1	$\mathfrak{M}_{348}(4, 2, 3 : 2)$	2
$\mathfrak{M}_{348}(4, 4, 3 : 1)$	1	$\mathfrak{M}_{348}(4, 4, 3 : 2)$	2
$\mathfrak{M}_{348}(4, 2, 5)$	$2^2$	$\mathfrak{M}_{348}(4, 6, 5 : 1)$	$2^2$
$\mathfrak{M}_{348}(4, 6, 5 : 2)$	$S_3$	$\mathfrak{M}_{348}(4, 2, 1 : 1)$	$2^2$
$\mathfrak{M}_{348}(4, 2, 1 : 2)$	$S_3$	$\mathfrak{M}_{348}(0, 4, 3)$	1
$\mathfrak{M}_{348}(0, 2, 3)$	2	$\mathfrak{M}_{348}(0, 2, 5 : 1)$	2
$\mathfrak{M}_{348}(0, 2, 5 : 2)$	$2^2$	$\mathfrak{M}_{348}(0, 4, 5)$	2
$\mathfrak{M}_{348}(0, 6, 1)$	$A_4$	$\mathfrak{M}_{348}(2, 4, 5 : 1)$	1
$\mathfrak{M}_{348}(2, 4, 5 : 2)$	2	$\mathfrak{M}_{348}(2, 4, 3 : 1)$	1
$\mathfrak{M}_{348}(2, 4, 3 : 2)$	2	$\mathfrak{M}_{348}(2, 6, 3 : 1)$	1
$\mathfrak{M}_{348}(2, 6, 3 : 2)$	2	$\mathfrak{M}_{348}(2, 2, 3 : 1)$	1
$\mathfrak{M}_{348}(2, 2, 3 : 2)$	2	$\mathfrak{M}_{348}(2, 4, 1 : 1)$	1
$\mathfrak{M}_{348}(2, 4, 1 : 2)$	2	$\mathfrak{M}_{348}(2, 2, 1)$	2
$\mathfrak{M}_{348}(2, 6, 5)$	2		
$\mathfrak{M}_{355}(4, 4, 4_1)$	1	$\mathfrak{M}_{355}(2, 2, 4_1 : 1)$	1
$\mathfrak{M}_{355}(2, 2, 4_1 : 2)$	2	$\mathfrak{M}_{355}(2, 2, 4_2)$	1
$\mathfrak{M}_{355}(2, 4, 4_1)$	1	$\mathfrak{M}_{355}(2, 2, 2 : 1)$	1
$\mathfrak{M}_{355}(2, 2, 2 : 2)$	2	$\mathfrak{M}_{355}(2, 4, 2)$	1
$\mathfrak{M}_{355}(2, 4, 4_2)$	2	$\mathfrak{M}_{355}(0, 2, 2)$	2
$\mathfrak{M}_{355}(0, 2, 4_1)$	2	$\mathfrak{M}_{355}(0, 4, 2)$	2
$\mathfrak{M}_{355}(4, 4, 2)$	2	$\mathfrak{M}_{355}(4, 4, 4_2)$	2
$\mathfrak{M}_{355}(0, 2, 4_2)$	$2^2$	$\mathfrak{M}_{355}(4, 2, 0)$	$2^2$
$\mathfrak{M}_{356}(4, 1, 0_2)$	1	$\mathfrak{M}_{356}(4, 0, 0_2)$	1
$\mathfrak{M}_{356}(4, 0, 1)$	1	$\mathfrak{M}_{356}(4, 2, 1)$	1
$\mathfrak{M}_{356}(4, 1, 2)$	2	$\mathfrak{M}_{356}(4, 0, 2)$	$2^2$
$\mathfrak{M}_{356}(4, 2, 2)$	$2^2$	$\mathfrak{M}_{356}(4, 0, 0_1)$	$S_3$
$\mathfrak{M}_{356}(4, 2, 0_1)$	$D_8$	$\mathfrak{M}_{356}(2, 0, 1)$	1
$\mathfrak{M}_{356}(2, 0, 0_2 : 1)$	1	$\mathfrak{M}_{356}(2, 0, 0_2 : 2)$	2

$\mathfrak{M}_{356}(2, 1, 0_2)$	1	$\mathfrak{M}_{356}(2, 1, 2)$	2
$\mathfrak{M}_{356}(2, 1, 0_1 : 1)$	2	$\mathfrak{M}_{356}(2, 1, 0_1 : 2)$	$2^2$
$\mathfrak{M}_{356}(2, 0, 2)$	2	$\mathfrak{M}_{356}(2, 2, 0_2)$	2
$\mathfrak{M}_{356}(2, 2, 1)$	2	$\mathfrak{M}_{356}(2, 0, 0_1)$	$2^2$
$\mathfrak{M}_{356}(0, 0, 1)$	3	$\mathfrak{M}_{356}(0, 0, 2)$	$S_3$
$\mathfrak{M}_{356}(0, 2, 0_2)$	$D_8$		
$\mathfrak{M}_{357}(2, 2, 6 : 1)$	1	$\mathfrak{M}_{357}(2, 2, 6 : 2)$	2
$\mathfrak{M}_{357}(2, 6, 4_2)$	1	$\mathfrak{M}_{357}(2, 2, 2)$	2
$\mathfrak{M}_{357}(2, 2, 4_1)$	2	$\mathfrak{M}_{357}(2, 6, 6)$	2
$\mathfrak{M}_{357}(2, 6, 2)$	2	$\mathfrak{M}_{357}(2, 6, 4_1)$	2
$\mathfrak{M}_{357}(4, 2, 4_2)$	1	$\mathfrak{M}_{357}(4, 6, 4_2)$	1
$\mathfrak{M}_{357}(4, 2, 2)$	2	$\mathfrak{M}_{357}(4, 2, 4_1)$	2
$\mathfrak{M}_{357}(4, 2, 6)$	2	$\mathfrak{M}_{357}(4, 6, 6)$	2
$\mathfrak{M}_{357}(0, 4, 4_2)$	1	$\mathfrak{M}_{357}(0, 2, 6)$	2
$\mathfrak{M}_{357}(0, 6, 2)$	$S_3$		
$\mathfrak{M}_{358}(2, 4, 6)$	1	$\mathfrak{M}_{358}(2, 4, 2)$	1
$\mathfrak{M}_{358}(2, 6, 4_1)$	1	$\mathfrak{M}_{358}(2, 2, 4_1)$	1
$\mathfrak{M}_{358}(2, 2, 4_2)$	1	$\mathfrak{M}_{358}(2, 4, 4_1)$	1
$\mathfrak{M}_{358}(2, 4, 4_2)$	1	$\mathfrak{M}_{358}(2, 2, 2)$	1
$\mathfrak{M}_{358}(2, 2, 6)$	1	$\mathfrak{M}_{358}(2, 6, 4_2)$	2
$\mathfrak{M}_{358}(2, 6, 2)$	2	$\mathfrak{M}_{358}(2, 2, 6)$	2
$\mathfrak{M}_{358}(4, 4, 6)$	1	$\mathfrak{M}_{358}(4, 2, 4_1)$	1
$\mathfrak{M}_{358}(4, 2, 4_2 : 1)$	1	$\mathfrak{M}_{358}(4, 2, 4_2 : 2)$	2
$\mathfrak{M}_{358}(4, 4, 4_2)$	1	$\mathfrak{M}_{358}(4, 2, 2 : 1)$	1
$\mathfrak{M}_{358}(4, 2, 2 : 2)$	2	$\mathfrak{M}_{358}(4, 4, 2 : 1)$	1
$\mathfrak{M}_{358}(4, 4, 2 : 2)$	2	$\mathfrak{M}_{358}(4, 4, 4_1)$	1
$\mathfrak{M}_{358}(4, 6, 6)$	2	$\mathfrak{M}_{358}(4, 4, 6)$	2
$\mathfrak{M}_{358}(4, 2, 6)$	2	$\mathfrak{M}_{358}(4, 6, 4_2)$	3
$\mathfrak{M}_{358}(0, 4, 4_1)$	1	$\mathfrak{M}_{358}(0, 2, 4_1)$	2
$\mathfrak{M}_{358}(0, 2, 6)$	2	$\mathfrak{M}_{358}(0, 4, 2)$	2
$\mathfrak{M}_{358}(0, 2, 4_2)$	$2^2$	$\mathfrak{M}_{358}(0, 6, 2)$	$S_3$
$\mathfrak{M}_{366}(1, 1, 0_1)$	1	$\mathfrak{M}_{366}(1, 0, 0_1 : 1)$	1
$\mathfrak{M}_{366}(1, 0, 0_1 : 2)$	2	$\mathfrak{M}_{366}(0, 0, 0_1 : 1)$	1
$\mathfrak{M}_{366}(0, 0, 0_1 : 2)$	2	$\mathfrak{M}_{366}(0, 0, 1)$	1
$\mathfrak{M}_{366}(1, 2, 0_1)$	2	$\mathfrak{M}_{366}(2, 0, 0_1)$	2
$\mathfrak{M}_{366}(0, 0, 0_2)$	2	$\mathfrak{M}_{366}(0, 1, 0_2)$	2
$\mathfrak{M}_{366}(2, 1, 0_2)$	$D_8$	$\mathfrak{M}_{366}(2, 2, 1)$	$A_4$
$\mathfrak{M}_{367}(1, 4, 0)$	1	$\mathfrak{M}_{367}(1, 2, 0 : 1)$	1

$\mathfrak{M}_{367}(1, 2, 0 : 2)$	4	$\mathfrak{M}_{367}(1, 4, 2_1 : 1)$	1
$\mathfrak{M}_{367}(1, 4, 2_1 : 2)$	2	$\mathfrak{M}_{367}(1, 6, 2_2)$	2
$\mathfrak{M}_{367}(1, 2, 2_1)$	2	$\mathfrak{M}_{367}(1, 6, 2_1)$	2
$\mathfrak{M}_{367}(1, 2, 2_2)$	2	$\mathfrak{M}_{367}(0, 4, 0 : 1)$	1
$\mathfrak{M}_{367}(0, 4, 0 : 2)$	1	$\mathfrak{M}_{367}(0, 2, 1 : 1)$	1
$\mathfrak{M}_{367}(0, 2, 1 : 2)$	2	$\mathfrak{M}_{367}(0, 6, 0)$	2
$\mathfrak{M}_{367}(0, 2, 0)$	2	$\mathfrak{M}_{367}(0, 2, 2_1)$	1
$\mathfrak{M}_{367}(0, 6, 1)$	1	$\mathfrak{M}_{367}(0, 2, 2_2)$	2
$\mathfrak{M}_{367}(0, 6, 2_1)$	4	$\mathfrak{M}_{367}(2, 4, 0)$	2
$\mathfrak{M}_{367}(2, 4, 2_1)$	2	$\mathfrak{M}_{367}(2, 2, 1)$	2
$\mathfrak{M}_{367}(2, 2, 0)$	2	$\mathfrak{M}_{367}(2, 6, 2_1)$	4
$\mathfrak{M}_{367}(2, 6, 2_2)$	$S_3$		
$\mathfrak{M}_{368}(0, 4, 2 : 1)$	1	$\mathfrak{M}_{368}(0, 4, 2 : 2)$	2
$\mathfrak{M}_{368}(0, 2, 1_1)$	1	$\mathfrak{M}_{368}(0, 4, 1_2)$	1
$\mathfrak{M}_{368}(0, 4, 0 : 1)$	1	$\mathfrak{M}_{368}(0, 4, 0 : 2)$	2
$\mathfrak{M}_{368}(0, 2, 1_2)$	1	$\mathfrak{M}_{368}(0, 2, 2 : 1)$	1
$\mathfrak{M}_{368}(0, 2, 2 : 2)$	2	$\mathfrak{M}_{368}(0, 2, 2 : 3)$	$2^2$
$\mathfrak{M}_{368}(0, 6, 1_1)$	2	$\mathfrak{M}_{368}(0, 2, 0 : 1)$	2
$\mathfrak{M}_{368}(0, 2, 0 : 2)$	$2^2$	$\mathfrak{M}_{368}(0, 6, 0)$	2
$\mathfrak{M}_{368}(1, 2, 0 : 1)$	1	$\mathfrak{M}_{368}(1, 2, 0 : 2)$	2
$\mathfrak{M}_{368}(1, 2, 2)$	1	$\mathfrak{M}_{368}(1, 4, 0 : 1)$	1
$\mathfrak{M}_{368}(1, 4, 0 : 2)$	2	$\mathfrak{M}_{368}(1, 6, 2)$	2
$\mathfrak{M}_{368}(2, 4, 1_2)$	1	$\mathfrak{M}_{368}(2, 4, 0)$	2
$\mathfrak{M}_{368}(2, 4, 2)$	2	$\mathfrak{M}_{368}(2, 2, 0 : 1)$	2
$\mathfrak{M}_{368}(2, 2, 0 : 2)$	$2^2$	$\mathfrak{M}_{368}(2, 2, 1_1)$	2
$\mathfrak{M}_{368}(2, 2, 1_2)$	3	$\mathfrak{M}_{368}(2, 6, 2)$	$2^2$
$\mathfrak{M}_{377}(6, 2, 6)$	1	$\mathfrak{M}_{377}(2, 2, 6)$	1
$\mathfrak{M}_{377}(2, 2, 8_1)$	1	$\mathfrak{M}_{377}(2, 4, 4 : 1)$	1
$\mathfrak{M}_{377}(2, 4, 4 : 2)$	2	$\mathfrak{M}_{377}(2, 2, 8_2)$	2
$\mathfrak{M}_{377}(2, 6, 4)$	4	$\mathfrak{M}_{377}(4, 6, 8_1)$	1
$\mathfrak{M}_{377}(4, 2, 8_1)$	1	$\mathfrak{M}_{377}(6, 2, 4)$	2
$\mathfrak{M}_{377}(4, 6, 4)$	2	$\mathfrak{M}_{377}(6, 6, 8_2)$	$S_3$
$\mathfrak{M}_{377}(6, 6, 8_1)$	1		
$\mathfrak{M}_{378}(6, 4, 8 : 1)$	1	$\mathfrak{M}_{378}(6, 4, 8 : 2)$	2
$\mathfrak{M}_{378}(6, 2, 6_2)$	1	$\mathfrak{M}_{378}(6, 4, 4)$	1
$\mathfrak{M}_{378}(6, 2, 4 : 1)$	1	$\mathfrak{M}_{378}(6, 2, 4 : 2)$	2
$\mathfrak{M}_{378}(6, 2, 6_1)$	2	$\mathfrak{M}_{378}(6, 6, 8)$	2
$\mathfrak{M}_{378}(2, 2, 8 : 1)$	1	$\mathfrak{M}_{378}(2, 2, 8 : 2)$	2

$\mathfrak{M}_{378}(2, 2, 4 : 1)$	1	$\mathfrak{M}_{378}(2, 2, 4 : 2)$	2
$\mathfrak{M}_{378}(2, 4, 6_1)$	1	$\mathfrak{M}_{378}(2, 2, 6_2)$	1
$\mathfrak{M}_{378}(2, 4, 8 : 1)$	1	$\mathfrak{M}_{378}(2, 4, 8 : 2)$	2
$\mathfrak{M}_{378}(2, 4, 4)$	1	$\mathfrak{M}_{378}(2, 6, 6_2)$	1
$\mathfrak{M}_{378}(2, 2, 6_1)$	2	$\mathfrak{M}_{378}(2, 6, 4)$	2
$\mathfrak{M}_{388}(2, 4, 3)$	1	$\mathfrak{M}_{388}(4, 4, 3)$	1
$\mathfrak{M}_{388}(4, 4, 5_2)$	1	$\mathfrak{M}_{388}(4, 6, 5_1)$	1
$\mathfrak{M}_{388}(4, 2, 5_1)$	1	$\mathfrak{M}_{388}(6, 4, 7_1)$	1
$\mathfrak{M}_{388}(2, 2, 7_1)$	1	$\mathfrak{M}_{388}(2, 2, 7_2 : 1)$	1
$\mathfrak{M}_{388}(2, 2, 7_2 : 2)$	2	$\mathfrak{M}_{388}(2, 4, 7_2)$	1
$\mathfrak{M}_{388}(4, 4, 7_2)$	1	$\mathfrak{M}_{388}(4, 4, 7_1)$	1
$\mathfrak{M}_{388}(2, 4, 3)$	1	$\mathfrak{M}_{388}(2, 4, 5_2 : 1)$	1
$\mathfrak{M}_{388}(2, 4, 5_2 : 2)$	2	$\mathfrak{M}_{388}(2, 2, 5_1)$	1
$\mathfrak{M}_{388}(2, 6, 5_1)$	1	$\mathfrak{M}_{388}(2, 6, 3 : 1)$	2
$\mathfrak{M}_{388}(2, 6, 3 : 2)$	$2^2$	$\mathfrak{M}_{388}(6, 6, 7_1)$	2
$\mathfrak{M}_{388}(6, 4, 7_2)$	2	$\mathfrak{M}_{388}(2, 6, 5_2)$	2
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$\mathfrak{M}_{555}(2, 2, 2)$	1	$\mathfrak{M}_{555}(4_1, 2, 2)$	1
$\mathfrak{M}_{555}(4_2, 2, 2)$	1	$\mathfrak{M}_{555}(4_2, 4_1, 4_1)$	1
$\mathfrak{M}_{555}(4_2, 4_1, 4_2)$	2		
$\mathfrak{M}_{556}(4_2, 1, 0_2)$	1	$\mathfrak{M}_{556}(2, 1, 2)$	1
$\mathfrak{M}_{556}(4_1, 0_2, 0_2 : 1)$	1	$\mathfrak{M}_{556}(4_1, 0_2, 0_2 : 2)$	2
$\mathfrak{M}_{556}(4_1, 1, 0_2)$	1	$\mathfrak{M}_{556}(4_1, 2, 1)$	1
$\mathfrak{M}_{556}(2, 0_2, 0_2)$	1	$\mathfrak{M}_{556}(4_1, 2, 0_2)$	2
$\mathfrak{M}_{556}(4_1, 2, 2)$	2	$\mathfrak{M}_{556}(4_2, 1, 2)$	2
$\mathfrak{M}_{556}(2, 0_1, 1)$	2	$\mathfrak{M}_{556}(2, 0_2, 2)$	2
$\mathfrak{M}_{556}(4_1, 0_1, 1)$	3	$\mathfrak{M}_{556}(0, 2, 0_2)$	$2^3$
$\mathfrak{M}_{556}(4_2, 2, 2)$	$2^4 2$	$\mathfrak{M}_{556}(0, 0_1, 0_1)$	$2^4 2^2$
$\mathfrak{M}_{557}(4_1, 4_2, 6)$	1	$\mathfrak{M}_{557}(4_1, 4_2, 2)$	1
$\mathfrak{M}_{557}(4_2, 2, 4_2)$	1	$\mathfrak{M}_{557}(4_2, 6, 4_2)$	1
$\mathfrak{M}_{558}(2, 2, 4_1)$	1	$\mathfrak{M}_{558}(2, 6, 4_1)$	1
$\mathfrak{M}_{558}(2, 4_2, 2)$	1	$\mathfrak{M}_{558}(2, 4_2, 6)$	1
$\mathfrak{M}_{558}(4_2, 4_1, 2)$	1	$\mathfrak{M}_{558}(4_2, 6, 4_1)$	1
$\mathfrak{M}_{558}(4_1, 6, 6 : 1)$	1	$\mathfrak{M}_{558}(4_1, 6, 6 : 2)$	2
$\mathfrak{M}_{558}(4_1, 4_2, 6)$	1	$\mathfrak{M}_{558}(4_1, 2, 2 : 1)$	1
$\mathfrak{M}_{558}(4_1, 2, 2 : 2)$	2	$\mathfrak{M}_{558}(4_1, 4_2, 4_1)$	1
$\mathfrak{M}_{558}(2, 6, 2 : 1)$	1	$\mathfrak{M}_{558}(2, 6, 2 : 2)$	2
$\mathfrak{M}_{558}(4_1, 6, 4_1)$	1	$\mathfrak{M}_{558}(4_1, 2, 4_2)$	1
$\mathfrak{M}_{558}(4_1, 2, 4_1)$	1	$\mathfrak{M}_{558}(4_2, 4_2, 4_2)$	1

$\mathfrak{M}_{558}(2, 6, 6)$	2	$\mathfrak{M}_{558}(4_1, 6, 2)$	2
$\mathfrak{M}_{558}(4_2, 6, 6)$	2	$\mathfrak{M}_{558}(4_2, 2, 2)$	2
$\mathfrak{M}_{558}(0, 6, 2)$	$2^2$	$\mathfrak{M}_{558}(4_1, 4_2, 4_2)$	2
$\mathfrak{M}_{558}(0, 4_2, 4_2)$	3	$\mathfrak{M}_{558}(4_2, 2, 6)$	$2^2$
$\mathfrak{M}_{566}(1, 0_2, 0_1)$	1	$\mathfrak{M}_{566}(2, 1, 0_1)$	1
$\mathfrak{M}_{566}(1, 1, 0_1)$	1	$\mathfrak{M}_{566}(0_1, 1, 0_1)$	2
$\mathfrak{M}_{566}(2, 0_2, 0_1)$	2	$\mathfrak{M}_{566}(2, 2, 1)$	$2^2$
$\mathfrak{M}_{566}(0_1, 0_2, 0_1)$	$2^2$	$\mathfrak{M}_{566}(2, 2, 0_1)$	$2^2$
$\mathfrak{M}_{566}(0_1, 0_1, 0_2)$	$2^3 2^2$	$\mathfrak{M}_{566}(0_1, 2, 0_2)$	$2^3 2$
$\mathfrak{M}_{567}(0_1, 6, 0)$	$2^2$	$\mathfrak{M}_{567}(0_1, 4_1, 0)$	$D_8$
$\mathfrak{M}_{567}(0_2, 6, 0)$	1	$\mathfrak{M}_{567}(0_2, 4_2, 0)$	1
$\mathfrak{M}_{567}(0_2, 4_2, 2_2)$	1	$\mathfrak{M}_{567}(0_2, 4_2, 2_1)$	1
$\mathfrak{M}_{567}(0_2, 4_1, 0)$	2	$\mathfrak{M}_{567}(0_2, 4_1, 2_1)$	2
$\mathfrak{M}_{567}(0_2, 2, 2_1)$	2	$\mathfrak{M}_{567}(0_2, 6, 2_1)$	2
$\mathfrak{M}_{567}(1, 2, 0)$	1	$\mathfrak{M}_{567}(1, 4_1, 0)$	1
$\mathfrak{M}_{567}(1, 6, 2_1)$	1	$\mathfrak{M}_{567}(1, 4_2, 0)$	1
$\mathfrak{M}_{567}(1, 4_2, 2_2)$	1	$\mathfrak{M}_{567}(1, 4_2, 2_1)$	1
$\mathfrak{M}_{567}(1, 6, 0)$	1	$\mathfrak{M}_{567}(1, 2, 2_1)$	2
$\mathfrak{M}_{567}(1, 4_1, 2_1)$	2	$\mathfrak{M}_{567}(2, 4_2, 1)$	1
$\mathfrak{M}_{567}(2, 4_2, 2_1)$	1	$\mathfrak{M}_{567}(2, 4_2, 0 : 1)$	1
$\mathfrak{M}_{567}(2, 4_2, 0 : 2)$	2	$\mathfrak{M}_{567}(2, 6, 2_1)$	2
$\mathfrak{M}_{567}(2, 4_2, 2_2)$	2	$\mathfrak{M}_{567}(2, 2, 0)$	2
$\mathfrak{M}_{567}(2, 4_1, 0)$	$2^2$		
$\mathfrak{M}_{568}(0_1, 4, 0)$	2	$\mathfrak{M}_{568}(0_1, 4, 2)$	2
$\mathfrak{M}_{568}(0_1, 4, 1)$	2	$\mathfrak{M}_{568}(0_1, 6, 1)$	$2^2$
$\mathfrak{M}_{568}(0_1, 6, 0)$	$2^2$	$\mathfrak{M}_{568}(0_1, 2, 2)$	$2^2$
$\mathfrak{M}_{568}(0_2, 2, 1_2 : 1)$	1	$\mathfrak{M}_{568}(0_2, 2, 1_2 : 2)$	2
$\mathfrak{M}_{568}(0_2, 2, 2)$	1	$\mathfrak{M}_{568}(0_2, 4_1, 1_1)$	1
$\mathfrak{M}_{568}(0_2, 6, 0)$	1	$\mathfrak{M}_{568}(0_2, 4_2, 0 : 1)$	1
$\mathfrak{M}_{568}(0_2, 4_2, 0 : 2)$	2	$\mathfrak{M}_{568}(0_2, 4_2, 1_1)$	1
$\mathfrak{M}_{568}(0_2, 4_2, 1_2)$	1	$\mathfrak{M}_{568}(0_2, 4_2, 2 : 1)$	1
$\mathfrak{M}_{568}(0_2, 4_2, 2 : 2)$	2	$\mathfrak{M}_{568}(0_2, 6, 2)$	2
$\mathfrak{M}_{568}(0_2, 6, 1_1)$	2	$\mathfrak{M}_{568}(0_2, 6, 1_2)$	2
$\mathfrak{M}_{568}(0_2, 2, 1_1)$	2	$\mathfrak{M}_{568}(0_2, 2, 0)$	2
$\mathfrak{M}_{568}(1, 4_1, 0)$	1	$\mathfrak{M}_{568}(1, 4_1, 2)$	1
$\mathfrak{M}_{568}(1, 6, 2)$	1	$\mathfrak{M}_{568}(1, 2, 2)$	1
$\mathfrak{M}_{568}(1, 6, 0 : 1)$	1	$\mathfrak{M}_{568}(1, 6, 0 : 2)$	2

$\mathfrak{M}_{568}(1, 4_2, 2)$	1	$\mathfrak{M}_{568}(1, 2, 0)$	2
$\mathfrak{M}_{568}(1, 2, 2)$	2	$\mathfrak{M}_{568}(1, 4_2, 0)$	1
$\mathfrak{M}_{568}(1, 6, 2)$	2	$\mathfrak{M}_{568}(2, 4_2, 1_1)$	1
$\mathfrak{M}_{568}(2, 4_1, 0)$	1	$\mathfrak{M}_{568}(2, 4_1, 1_2)$	1
$\mathfrak{M}_{568}(2, 4_1, 2)$	1	$\mathfrak{M}_{568}(2, 4_2, 0)$	2
$\mathfrak{M}_{568}(2, 4_2, 2)$	2	$\mathfrak{M}_{568}(2, 6, 1_1)$	2
$\mathfrak{M}_{568}(2, 2, 1_1)$	2	$\mathfrak{M}_{568}(2, 2, 0)$	2
$\mathfrak{M}_{568}(2, 6, 1_2)$	2	$\mathfrak{M}_{568}(2, 6, 2)$	2
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$\mathfrak{M}_{577}(4_2, 4_2, 8_2)$	1	$\mathfrak{M}_{577}(6, 4_2, 8_1)$	1
$\mathfrak{M}_{577}(2, 6, 4)$	1	$\mathfrak{M}_{577}(4_1, 4_2, 4)$	1
$\mathfrak{M}_{577}(4_2, 6, 4)$	1	$\mathfrak{M}_{577}(2, 2, 8_1 : 1)$	1
$\mathfrak{M}_{577}(2, 2, 8_1 : 2)$	2	$\mathfrak{M}_{577}(4_2, 4_2, 8_1)$	1
$\mathfrak{M}_{577}(6, 6, 8_1)$	1	$\mathfrak{M}_{577}(6, 4_1, 8_1)$	1
$\mathfrak{M}_{577}(6, 2, 8_1)$	2	$\mathfrak{M}_{577}(4_1, 6, 4)$	2
$\mathfrak{M}_{577}(2, 4_2, 4)$	2	$\mathfrak{M}_{577}(2, 4_1, 8_1)$	2
$\mathfrak{M}_{577}(4_1, 4_1, 4)$	$2^2$		
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$\mathfrak{M}_{578}(4_2, 4_1, 8)$	1	$\mathfrak{M}_{578}(4_2, 4_2, 8)$	1
$\mathfrak{M}_{578}(4_2, 6, 8)$	1	$\mathfrak{M}_{578}(4_2, 2, 8)$	1
$\mathfrak{M}_{578}(4_2, 4_1, 4)$	1	$\mathfrak{M}_{578}(4_2, 2, 4)$	1
$\mathfrak{M}_{578}(4_2, 6, 4)$	1	$\mathfrak{M}_{578}(4_2, 4_2, 6_1)$	1
$\mathfrak{M}_{578}(4_2, 4_1, 6_1)$	1	$\mathfrak{M}_{578}(4_2, 4_2, 4)$	1
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$\mathfrak{M}_{588}(4_2, 4_1, 5_2)$	1	$\mathfrak{M}_{588}(6, 6, 5_1)$	1
$\mathfrak{M}_{588}(4_2, 6, 5_1)$	1	$\mathfrak{M}_{588}(4_2, 4_1, 3)$	1
$\mathfrak{M}_{588}(4_2, 4_2, 3)$	1	$\mathfrak{M}_{588}(4_2, 4_1, 7_1)$	1
$\mathfrak{M}_{588}(4_2, 4_2, 7_1)$	1	$\mathfrak{M}_{588}(6, 4_1, 7_1)$	1
$\mathfrak{M}_{588}(2, 2, 7_1)$	1	$\mathfrak{M}_{588}(6, 6, 7_1)$	1
$\mathfrak{M}_{588}(4_1, 4_2, 7_2)$	1	$\mathfrak{M}_{588}(6, 6, 7_2)$	1
$\mathfrak{M}_{588}(2, 2, 7_2)$	1	$\mathfrak{M}_{588}(4_2, 4_2, 7_2)$	1
$\mathfrak{M}_{588}(4_1, 2, 7_2)$	1	$\mathfrak{M}_{588}(6, 4_1, 3)$	1
$\mathfrak{M}_{588}(2, 6, 3 : 1)$	1	$\mathfrak{M}_{588}(2, 6, 3 : 2)$	2
$\mathfrak{M}_{588}(2, 4_1, 3)$	1	$\mathfrak{M}_{588}(4_2, 2, 5_2)$	1
$\mathfrak{M}_{588}(4_2, 6, 5_2)$	1	$\mathfrak{M}_{588}(2, 2, 5_1)$	1
$\mathfrak{M}_{588}(2, 6, 5_1)$	1	$\mathfrak{M}_{588}(2, 2, 5_2)$	2
$\mathfrak{M}_{588}(6, 6, 5_2)$	2	$\mathfrak{M}_{588}(4_2, 2, 3)$	2
$\mathfrak{M}_{588}(4_2, 6, 3)$	2	$\mathfrak{M}_{588}(2, 6, 7_1)$	2
$\mathfrak{M}_{588}(4_2, 6, 7_1)$	2	$\mathfrak{M}_{588}(2, 4_2, 7_1)$	2
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$\mathfrak{M}_{666}(0_1, 0_1, 0_1)$	1	$\mathfrak{M}_{666}(0_1, 0_1, 1)$	1



$\mathfrak{M}_{666}(0_1, 1, 0_2)$	2	$\mathfrak{M}_{666}(0_1, 0_2, 0_1)$	2
$\mathfrak{M}_{666}(0_1, 0_2, 0_2)$	$2^2$	$\mathfrak{M}_{666}(0_2, 0_2, 0_2)$	$2^3$
$\mathfrak{M}_{667}(0_2, 0, 1)$	1	$\mathfrak{M}_{667}(1, 0, 0)$	1
$\mathfrak{M}_{667}(0_1, 0, 0 : 1)$	1	$\mathfrak{M}_{667}(0_1, 0, 0 : 2)$	2
$\mathfrak{M}_{667}(0_1, 0, 1)$	1	$\mathfrak{M}_{667}(0_1, 0, 2_2 : 1)$	1
$\mathfrak{M}_{667}(0_1, 0, 2_2 : 2)$	2	$\mathfrak{M}_{667}(1, 2_2, 2_1)$	2
$\mathfrak{M}_{667}(0_1, 2_1, 0)$	2	$\mathfrak{M}_{667}(0_2, 2_1, 1)$	2
$\mathfrak{M}_{667}(1, 2_1, 2_1)$	2	$\mathfrak{M}_{667}(0_1, 2_2, 2_1)$	2
$\mathfrak{M}_{667}(0_2, 0, 0)$	$2^2$		
$\mathfrak{M}_{668}(1, 0, 0 : 1)$	1	$\mathfrak{M}_{668}(1, 0, 0 : 2)$	2
$\mathfrak{M}_{668}(1, 2, 2 : 1)$	1	$\mathfrak{M}_{668}(1, 2, 2 : 2)$	2
$\mathfrak{M}_{668}(0_1, 1_1, 0)$	1	$\mathfrak{M}_{668}(0_1, 2, 1_2)$	1
$\mathfrak{M}_{668}(0_1, 1_2, 0)$	1	$\mathfrak{M}_{668}(0_1, 1_1, 1_1)$	1
$\mathfrak{M}_{668}(0_1, 0, 0)$	1	$\mathfrak{M}_{668}(0_1, 0, 2)$	1
$\mathfrak{M}_{668}(0_1, 1_2, 1_2)$	1	$\mathfrak{M}_{668}(0_1, 1, 2)$	1
$\mathfrak{M}_{668}(0_1, 2, 2)$	1	$\mathfrak{M}_{668}(0_2, 1_1, 1_1)$	2
$\mathfrak{M}_{668}(0_2, 0, 0)$	2	$\mathfrak{M}_{668}(0_2, 1_2, 1_2)$	2
$\mathfrak{M}_{668}(0_2, 1_1, 0)$	2	$\mathfrak{M}_{668}(0_2, 1_1, 1_2)$	2
$\mathfrak{M}_{668}(0_2, 0, 2 : 1)$	2	$\mathfrak{M}_{668}(0_2, 0, 2 : 2)$	$2^2$
$\mathfrak{M}_{668}(0_2, 2, 2)$	2	$\mathfrak{M}_{668}(0_2, 1_1, 2)$	2
$\mathfrak{M}_{668}(0_2, 1_2, 2)$	$2^2$		
$\mathfrak{M}_{677}(2_2, 1, 4)$	1	$\mathfrak{M}_{677}(2_1, 0, 4)$	1
$\mathfrak{M}_{677}(1, 0, 4)$	1	$\mathfrak{M}_{677}(2_1, 0, 6)$	1
$\mathfrak{M}_{677}(2_1, 2_1, 6)$	1	$\mathfrak{M}_{677}(2_1, 2_2, 8_1)$	1
$\mathfrak{M}_{677}(1, 2_2, 8_1)$	1	$\mathfrak{M}_{677}(2_1, 1, 8_1)$	1
$\mathfrak{M}_{677}(2_1, 0, 8_1)$	1	$\mathfrak{M}_{677}(1, 0, 8_1)$	1
$\mathfrak{M}_{677}(2_1, 2_1, 8_1)$	1	$\mathfrak{M}_{677}(0, 0, 8_1 : 1)$	1
$\mathfrak{M}_{677}(0, 0, 8_1 : 2)$	2	$\mathfrak{M}_{677}(0, 0, 6)$	1
$\mathfrak{M}_{677}(2_1, 2_1, 8_2)$	2	$\mathfrak{M}_{677}(2_1, 1, 4)$	2
$\mathfrak{M}_{677}(2_2, 2_2, 8_1)$	2	$\mathfrak{M}_{677}(0, 0, 8_2)$	2
$\mathfrak{M}_{677}(2_2, 0, 4 : 1)$	2	$\mathfrak{M}_{677}(2_2, 0, 4 : 2)$	$2^2$
$\mathfrak{M}_{677}(2_1, 2_1, 4)$	2		
$\mathfrak{M}_{678}(0, 1_1, 6_1)$	1	$\mathfrak{M}_{678}(0, 1_2, 6_1 : 1)$	1
$\mathfrak{M}_{678}(0, 1_2, 6_1 : 2)$	2	$\mathfrak{M}_{678}(0, 0, 8 : 1)$	1
$\mathfrak{M}_{678}(0, 0, 8 : 2)$	2	$\mathfrak{M}_{678}(0, 1_1, 8)$	1
$\mathfrak{M}_{678}(0, 1_1, 4)$	1	$\mathfrak{M}_{678}(0, 2, 4 : 1)$	1
$\mathfrak{M}_{678}(0, 2, 4 : 2)$	2	$\mathfrak{M}_{678}(0, 0, 6_2)$	1
$\mathfrak{M}_{678}(0, 1_1, 6_2)$	1	$\mathfrak{M}_{678}(0, 2, 6_2)$	1

$\mathfrak{M}_{678}(0, 0, 6_1)$	2	$\mathfrak{M}_{678}(0, 2, 6_1)$	2
$\mathfrak{M}_{678}(0, 2, 8)$	2	$\mathfrak{M}_{678}(0, 0, 4)$	2
$\mathfrak{M}_{678}(2_1, 1_2, 6_1)$	1	$\mathfrak{M}_{678}(2_1, 1_2, 8)$	1
$\mathfrak{M}_{678}(2_1, 2, 8)$	1	$\mathfrak{M}_{678}(2_1, 0, 6_2)$	1
$\mathfrak{M}_{678}(2_1, 1_2, 6_2)$	1	$\mathfrak{M}_{678}(2_1, 2, 6_2)$	1
$\mathfrak{M}_{678}(2_1, 0, 4)$	1	$\mathfrak{M}_{678}(2_1, 1, 4)$	1
$\mathfrak{M}_{678}(2_1, 0, 6_1)$	2	$\mathfrak{M}_{678}(2_1, 2, 6_1)$	2
$\mathfrak{M}_{678}(2_1, 0, 8)$	2	$\mathfrak{M}_{678}(2_1, 2, 4)$	2
$\mathfrak{M}_{688}(0, 1_1, 5_2)$	1	$\mathfrak{M}_{688}(0, 1_2, 5_2)$	1
$\mathfrak{M}_{688}(1_2, 2, 5_2)$	1	$\mathfrak{M}_{688}(1_1, 2, 5_2)$	1
$\mathfrak{M}_{688}(0, 0, 7_2)$	1	$\mathfrak{M}_{688}(1_2, 0, 7_2)$	1
$\mathfrak{M}_{688}(1_1, 0, 7_2)$	1	$\mathfrak{M}_{688}(2, 1_1, 7_2)$	1
$\mathfrak{M}_{688}(2, 1_2, 7_2)$	1	$\mathfrak{M}_{688}(2, 2, 7_2)$	1
$\mathfrak{M}_{688}(0, 1_2, 3)$	1	$\mathfrak{M}_{688}(1_2, 2, 3)$	1
$\mathfrak{M}_{688}(0, 0, 7_1)$	1	$\mathfrak{M}_{688}(1_2, 0, 7_1)$	1
$\mathfrak{M}_{688}(1_1, 0, 7_1)$	1	$\mathfrak{M}_{688}(2, 1_2, 7_1)$	1
$\mathfrak{M}_{688}(2, 1_1, 7_1)$	1	$\mathfrak{M}_{688}(2, 2, 7_1)$	1
$\mathfrak{M}_{688}(0, 0, 5_1)$	1	$\mathfrak{M}_{688}(2, 2, 5_1)$	1
$\mathfrak{M}_{688}(0, 0, 5_2)$	2	$\mathfrak{M}_{688}(2, 2, 5_2)$	2
$\mathfrak{M}_{688}(1_1, 2, 3)$	2		
*****	****	*****	****
$\mathfrak{M}_{777}(8_1, 8_2, 8_1)$	1	$\mathfrak{M}_{777}(8_1, 4, 8_1)$	1
$\mathfrak{M}_{777}(4, 8_1, 4)$	1	$\mathfrak{M}_{777}(4, 4, 8_2)$	2 <sup>2</sup>
$\mathfrak{M}_{778}(8_1, 4, 6_1)$	1	$\mathfrak{M}_{778}(8_1, 6_1, 6_1 : 1)$	1
$\mathfrak{M}_{778}(8_1, 6_1, 6_1 : 2)$	2	$\mathfrak{M}_{778}(8_1, 8, 6_1)$	1
$\mathfrak{M}_{778}(4, 6_1, 6_1)$	1	$\mathfrak{M}_{778}(8_1, 6_2, 6_1)$	1
$\mathfrak{M}_{778}(8_1, 8, 8)$	1	$\mathfrak{M}_{778}(4, 4, 8 : 1)$	1
$\mathfrak{M}_{778}(4, 4, 8 : 2)$	2	$\mathfrak{M}_{778}(8_1, 4, 4)$	1
$\mathfrak{M}_{778}(8_1, 8, 4)$	1	$\mathfrak{M}_{778}(4_1, 6_2, 8)$	1
*****	****	*****	****
$\mathfrak{M}_{888}(3, 7_1, 5_1)$	1	$\mathfrak{M}_{888}(3, 7_1, 3 : 1)$	1
$\mathfrak{M}_{888}(3, 7_1, 3 : 2)$	2	$\mathfrak{M}_{888}(3, 7_2, 3)$	1
$\mathfrak{M}_{888}(3, 5_2, 5_1)$	1	$\mathfrak{M}_{888}(5_1, 5_2, 5_2)$	1
$\mathfrak{M}_{888}(5_2, 7_1, 7_1)$	1	$\mathfrak{M}_{888}(5_2, 7_2, 5_2)$	1
$\mathfrak{M}_{888}(7_1, 7_1, 7_2)$	1	$\mathfrak{M}_{888}(7_1, 7_1, 3)$	1
$\mathfrak{M}_{888}(5_2, 5_2, 3)$	1	$\mathfrak{M}_{888}(7_1, 7_2, 7_2)$	1
$\mathfrak{M}_{888}(5_2, 7_1, 5_2)$	2	$\mathfrak{M}_{888}(3, 7_2, 7_2)$	3

We now define the subgroups for  $\mathfrak{M}_{ijk}(t_i, t_j, t_k : l)$  ( $l \in \{1, 2, 3\}$ ) by giving the  $X_i \in \mathfrak{X}$  such that  $G_i = \text{Stab}_G X_i$  ( $i = 1, 2, 3$ ).

$\mathcal{M}_{ijk}(t_i, t_j, t_k : 1)$	$X_1$	$X_2$	$X_3$									
$\mathcal{M}_{116}(0, 0, 0 : 1)$	{9}	{22}	{17, 11}									
$\mathcal{M}_{116}(0, 0, 0 : 2)$	{19}	{22}	{17, 11}									
$\mathcal{M}_{118}(0, 0, 1 : 1)$	{11}	{22}	$e_2$									
$\mathcal{M}_{118}(0, 0, 1 : 2)$	{1}	{22}	$e_2$									
$\mathcal{M}_{125}(0, 0, 2 : 1)$	{19}	$h_2$	$O_2$									
$\mathcal{M}_{125}(0, 0, 2 : 2)$	{0}	$h_2$	$O_2$									
$\mathcal{M}_{126}(0, 0, 0 : 1)$	{22}	$h_1$	{17, 11}									
$\mathcal{M}_{126}(0, 0, 0 : 2)$	{4}	$h_1$	{17, 11}									
$\mathcal{M}_{128}(0, 1, 3 : 1)$	{22}	$h_1$	$e_2$									
$\mathcal{M}_{128}(0, 1, 3 : 2)$	{4}	$h_1$	$e_2$									
$\mathcal{M}_{128}(0, 0, 3 : 1)$	{17}	$h_1$	$e_2$									
$\mathcal{M}_{128}(0, 0, 3 : 2)$	{1}	$h_1$	$e_2$									
$\mathcal{M}_{133}(0, 0, 3 : 1)$	{22}	$h_2$	$h_7^*$									
$\mathcal{M}_{133}(0, 0, 3 : 2)$	{0}	$h_2$	$h_7^*$									
$\mathcal{M}_{135}(0, 0, 2 : 1)$	{4}	$h_2^*$	$O_3$									
$\mathcal{M}_{135}(0, 0, 2 : 2)$	{8}	$h_2^*$	$O_3$									
$\mathcal{M}_{135}(1, 0, 2 : 1)$	{0}	$h_2^*$	$O_3$									
$\mathcal{M}_{135}(1, 0, 2 : 2)$	{17}	$h_2^*$	$O_3$									
$\mathcal{M}_{135}(0, 0, 4 : 1)$	{0}	$h_1^*$	$O_2$									
$\mathcal{M}_{135}(0, 0, 4 : 2)$	{22}	$h_1^*$	$O_2$									
$\mathcal{M}_{136}(0, 0, 1 : 1)$	{22}	$h_1^*$	{17, 11}									
$\mathcal{M}_{136}(0, 0, 1 : 2)$	{0}	$h_1^*$	{17, 11}									
$\mathcal{M}_{138}(0, 1, 2 : 1)$	{13}	$h_2^*$	$e_2$									
$\mathcal{M}_{138}(0, 1, 2 : 2)$	{8}	$h_2^*$	$e_2$									
$\mathcal{M}_{138}(1, 0, 2 : 1)$	{0}	$h_2^*$	$e_2$									
$\mathcal{M}_{138}(1, 0, 2 : 2)$	{17}	$h_2^*$	$e_2$									
$\mathcal{M}_{138}(0, 0, 4 : 1)$	{0}	$h_6^*$	$e_2$									
$\mathcal{M}_{138}(0, 0, 4 : 2)$	{17}	$h_6^*$	$e_2$									
$\mathcal{M}_{155}(0, 0, 4_1 : 1)$	{19}	$O_2$	$O_4$									
$\mathcal{M}_{155}(0, 0, 4_1 : 2)$	{0}	$O_2$	$O_4$									
$\mathcal{M}_{156}(0, 0, 2 : 1)$	{22}	$O_2$	{17, 11}									
$\mathcal{M}_{156}(0, 0, 2 : 2)$	{8}	$O_2$	{17, 11}									
$\mathcal{M}_{157}(0, 1, 4_2 : 1)$	{16}	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>× ×</td><td></td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> </table>		× ×		×	×	×	×	×	×	$d_1$
	× ×											
×	×	×										
×	×	×										

$\mathfrak{M}_{157}(0, 1, 4_2 : 2)$	{0}	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>××</td><td></td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> </table>		××		×	×	×	×	×	×	$d_1$			
	××														
×	×	×													
×	×	×													
$\mathfrak{M}_{158}(0, 1, 2 : 1)$	{4}	$O_3$	$e_2$												
$\mathfrak{M}_{158}(0, 1, 2 : 2)$	{8}	$O_3$	$e_2$												
$\mathfrak{M}_{158}(0, 1, 4_1 : 1)$	{20}	$O_7$	$e_2$												
$\mathfrak{M}_{158}(0, 1, 4_1 : 2)$	{16}	$O_7$	$e_2$												
$\mathfrak{M}_{158}(0, 0, 4_1 : 1)$	{12}	$O_7$	$e_2$												
$\mathfrak{M}_{158}(0, 0, 4_1 : 2)$	{3}	$O_7$	$e_2$												
$\mathfrak{M}_{158}(0, 0, 6 : 1)$	{0}	$O_2$	$e_2$												
$\mathfrak{M}_{158}(0, 0, 6 : 2)$	{1}	$O_2$	$e_2$												
$\mathfrak{M}_{158}(0, 1, 6 : 1)$	{22}	$O_2$	$e_2$												
$\mathfrak{M}_{158}(0, 1, 6 : 2)$	{8}	$O_2$	$e_2$												
$\mathfrak{M}_{166}(0, 0, 0_1 : 1)$	{0}	{17, 11}	{22, 19}												
$\mathfrak{M}_{166}(0, 0, 0_1 : 2)$	{1}	{17, 11}	{22, 19}												
$\mathfrak{M}_{167}(0, 0, 1 : 1)$	{1}	{22, 19}	$d_1$												
$\mathfrak{M}_{167}(0, 0, 1 : 2)$	{4}	{22, 19}	$d_1$												
$\mathfrak{M}_{168}(0, 0, 0 : 1)$	{1}	{17, 11}	$e_2$												
$\mathfrak{M}_{168}(0, 0, 0 : 2)$	{0}	{17, 11}	$e_2$												
$\mathfrak{M}_{168}(0, 1, 0 : 1)$	{4}	{17, 11}	$e_2$												
$\mathfrak{M}_{168}(0, 1, 0 : 2)$	{8}	{17, 11}	$e_2$												
$\mathfrak{M}_{168}(0, 1, 0 : 3)$	{22}	{17, 11}	$e_2$												
$\mathfrak{M}_{168}(0, 0, 2 : 1)$	{1}	{22, 19}	$e_2$												
$\mathfrak{M}_{168}(0, 0, 2 : 2)$	{0}	{22, 19}	$e_2$												
$\mathfrak{M}_{168}(0, 1, 2 : 1)$	{4}	{22, 19}	$e_2$												
$\mathfrak{M}_{168}(0, 1, 2 : 2)$	{8}	{22, 19}	$e_2$												
$\mathfrak{M}_{177}(1, 1, 8_1 : 1)$	{16}	$d_1$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td></td></tr> <tr><td>×</td><td>×</td><td></td></tr> </table>	×	×	×	×	×	×	×	×		×	×	
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×	×	×													
×	×														
×	×														
$\mathfrak{M}_{177}(1, 1, 8_1 : 2)$	{22}	$d_1$	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td>×</td></tr> <tr><td>×</td><td>×</td><td></td></tr> <tr><td>×</td><td>×</td><td></td></tr> </table>	×	×	×	×	×	×	×	×		×	×	
×	×	×													
×	×	×													
×	×														
×	×														
$\mathfrak{M}_{188}(0, 0, 7_1 : 1)$	{12}	$e_2$	$e_4$												
$\mathfrak{M}_{188}(0, 0, 7_1 : 2)$	{9}	$e_2$	$e_4$												
$\mathfrak{M}_{188}(1, 1, 7_1 : 1)$	{16}	$e_2$	$e_4$												
$\mathfrak{M}_{188}(1, 1, 7_1 : 2)$	{22}	$e_2$	$e_4$												
*****	*****	*****	*****												

$\mathfrak{M}_{222}(2, 2, 2 : 1)$	$h_2$	$h_5$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>x</td><td>xx</td></tr><tr><td></td><td>x</td><td></td></tr></table>		x	xx		x	
	x	xx							
	x								
$\mathfrak{M}_{222}(2, 2, 2 : 2)$	$h_1$	$h_3$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>xx</td><td></td></tr><tr><td>xx</td><td>xx</td><td></td></tr></table>		xx		xx	xx	
	xx								
xx	xx								
$\mathfrak{M}_{223}(2, 3, 1 : 1)$	$h_2$	$h_5$	$h_5^*$						
$\mathfrak{M}_{223}(2, 3, 1 : 2)$	$h_2$	$h_3$	$h_1^*$						
$\mathfrak{M}_{223}(2, 3, 3 : 1)$	$h_1$	$h_3$	$h_1^*$						
$\mathfrak{M}_{223}(2, 3, 3 : 2)$	$h_2$	$h_5$	$h_2^*$						
$\mathfrak{M}_{225}(2, 2, 2 : 1)$	$h_2$	$h_3$	$O_4$						
$\mathfrak{M}_{225}(2, 2, 2 : 2)$	$h_2$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>	x	x	x	x	x	x	$O_2$
x	x	x							
x	x	x							
$\mathfrak{M}_{226}(2, 0, 0 : 1)$	$h_1$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>	x	x	x	x	x	x	$\{22, 19\}$
x	x	x							
x	x	x							
$\mathfrak{M}_{226}(2, 0, 0 : 2)$	$h_1$	$h_4$	$\{17, 11\}$						
$\mathfrak{M}_{227}(2, 4, 4 : 1)$	$h_3$	$h_4$	$d_1$						
$\mathfrak{M}_{227}(2, 4, 4 : 2)$	$h_3$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>	x	x	x	x	x	x	$d_1$
x	x	x							
x	x	x							
$\mathfrak{M}_{228}(2, 3, 3 : 1)$	$h_1$	$h_3$	$e_1$						
$\mathfrak{M}_{228}(2, 3, 3 : 2)$	$h_1$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td>x</td></tr><tr><td>x</td><td>x</td><td></td></tr></table>			x	x	x		$e_2$
		x							
x	x								
$\mathfrak{M}_{228}(2, 3, 3 : 3)$	$h_1$	$h_3$	$e_2$						
$\mathfrak{M}_{228}(2, 3, 5 : 1)$	$h_1$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>			x	x	x	x	$e_2$
		x							
x	x	x							
$\mathfrak{M}_{228}(2, 3, 5 : 2)$	$h_1$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>xx</td><td></td><td></td></tr><tr><td></td><td>xx</td><td></td></tr></table>	xx				xx		$e_2$
xx									
	xx								
$\mathfrak{M}_{228}(2, 1, 3 : 1)$	$h_2$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>	x	x	x	x	x	x	$e_2$
x	x	x							
x	x	x							

$\mathfrak{M}_{228}(2, 1, 3 : 2)$	$h_1$	$h_6$	$e_2$
$\mathfrak{M}_{233}(3, 3, 3 : 1)$	$h_1$	$h_5^*$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline \times & & \times \times \\ \hline \end{array}$
$\mathfrak{M}_{233}(3, 3, 3 : 1)$	$h_1$	$h_5^*$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline \times & & \times \times \\ \hline \end{array}$
$\mathfrak{M}_{233}(3, 3, 3 : 2)$	$h_6$	$h_6^*$	$h_5^*$
$\mathfrak{M}_{233}(1, 1, 3 : 1)$	$h_2$	$h_1^*$	$h_7^*$
$\mathfrak{M}_{233}(1, 1, 3 : 2)$	$\begin{array}{ c c c } \hline & \times & \\ \hline \times & & \times \times \\ \hline \end{array}$	$h_1^*$	$h_7^*$
$\mathfrak{M}_{234}(3, 3, 2 : 1)$	$h_1$	$h_1^*$	$\begin{array}{ c c c } \hline & \times \times & \times \times \\ \hline \times & & \\ \hline \times & & \\ \hline \end{array}$
$\mathfrak{M}_{234}(3, 3, 2 : 2)$	$h_1$	$h_1^*$	$\begin{array}{ c c c } \hline \times & & \times \\ \hline \times & & \times \\ \hline \end{array}$
$\mathfrak{M}_{235}(3, 2, 2 : 1)$	$h_1$	$h_1^*$	$\begin{array}{ c c c } \hline \times \times & \times \times & \times \times \\ \hline & & \times \times \\ \hline \end{array}$
$\mathfrak{M}_{235}(3, 2, 2 : 2)$	$h_2$	$h_5^*$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline \times \times & & \\ \hline \times \times & & \\ \hline \end{array}$
$\mathfrak{M}_{235}(3, 4, 4 : 1)$	$h_1$	$h_6^*$	$\begin{array}{ c c c } \hline & & \\ \hline \times \times & & \times \times \\ \hline \times \times & & \times \times \\ \hline \end{array}$
$\mathfrak{M}_{235}(3, 4, 4 : 2)$	$h_2$	$h_1^*$	$O_3$
$\mathfrak{M}_{235}(1, 4, 2 : 1)$	$h_2$	$h_6^*$	$O_7$
$\mathfrak{M}_{235}(1, 4, 2 : 2)$	$h_2$	$h_6^*$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline & \times \times & \\ \hline & & \times \times \\ \hline & & \times \times \\ \hline \end{array}$
$\mathfrak{M}_{236}(3, 0, 0 : 1)$	$h_1$	$h_6^*$	$\{17, 13\}$
$\mathfrak{M}_{236}(3, 0, 0 : 2)$	$h_1$	$h_6^*$	$\{17, 4\}$
$\mathfrak{M}_{236}(3, 0, 0 : 3)$	$h_1$	$h_6^*$	$\{17, 11\}$

$\mathcal{M}_{236}(1, 0, 0 : 1)$	$h_2$	$h_6^*$	$\{4, 19\}$									
$\mathcal{M}_{236}(1, 0, 0 : 2)$	$h_2$	$h_1^*$	$\{0, 13\}$									
$\mathcal{M}_{236}(1, 1, 0 : 1)$	$h_2$	$h_6^*$	$\{9, 19\}$									
$\mathcal{M}_{236}(1, 1, 0 : 2)$	$h_2$	$h_1^*$	$\{22, 19\}$									
$\mathcal{M}_{237}(3, 4, 4 : 1)$	$h_3$	$h_1^*$	$d_1$									
$\mathcal{M}_{237}(3, 4, 4 : 2)$	$h_3$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>× ×</td><td>×</td></tr><tr><td>×</td><td></td><td>×</td></tr></table>		× ×	×	×		×	$d_1$			
	× ×	×										
×		×										
$\mathcal{M}_{237}(3, 4, 2 : 1)$	$h_3$	$h_9^*$	$d_1$									
$\mathcal{M}_{237}(3, 4, 2 : 2)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td>×</td><td>×</td></tr><tr><td>×</td><td>×</td><td>×</td></tr></table>	×	×	×	×	×	×	$h_9^*$	$d_1$			
×	×	×										
×	×	×										
$\mathcal{M}_{237}(1, 4, 2 : 1)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td>×</td><td>×</td></tr><tr><td>×</td><td>×</td><td>×</td></tr></table>	×	×	×	×	×	×	$h_9^*$	$d_1$			
×	×	×										
×	×	×										
$\mathcal{M}_{237}(1, 4, 2 : 2)$	$h_6$	$h_9^*$	$d_1$									
$\mathcal{M}_{237}(1, 4, 4 : 1)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td>×</td><td>×</td></tr><tr><td>×</td><td>×</td><td>×</td></tr></table>	×	×	×	×	×	×	$h_6^*$	$d_1$			
×	×	×										
×	×	×										
$\mathcal{M}_{237}(1, 4, 4 : 2)$	$h_3$	$h_6^*$	$d_1$									
$\mathcal{M}_{238}(3, 3, 4 : 1)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>×</td><td></td></tr><tr><td>×</td><td>×</td><td></td></tr><tr><td>×</td><td></td><td>×</td></tr></table>		×		×	×		×		×	$h_5^*$	$e_2$
	×											
×	×											
×		×										
$\mathcal{M}_{238}(3, 3, 4 : 2)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td>× ×</td></tr><tr><td>× ×</td><td></td><td>× ×</td></tr></table>			× ×	× ×		× ×	$h_5^*$	$e_2$			
		× ×										
× ×		× ×										
$\mathcal{M}_{238}(3, 3, 2 : 1)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>×</td><td>×</td></tr><tr><td>×</td><td>×</td><td>×</td></tr><tr><td>×</td><td></td><td></td></tr></table>		×	×	×	×	×	×			$h_2^*$	$e_2$
	×	×										
×	×	×										
×												
$\mathcal{M}_{238}(3, 3, 2 : 2)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td>× ×</td></tr><tr><td>×</td><td>×</td><td></td></tr><tr><td>×</td><td>×</td><td></td></tr></table>			× ×	×	×		×	×		$h_2^*$	$e_2$
		× ×										
×	×											
×	×											
$\mathcal{M}_{238}(3, 3, 2 : 3)$	$h_4$	$h_2^*$	$e_2$									
$\mathcal{M}_{238}(3, 1, 2 : 1)$	$h_6$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td></td><td></td></tr><tr><td>×</td><td>× ×</td><td>× ×</td></tr><tr><td>×</td><td></td><td></td></tr></table>	×			×	× ×	× ×	×			$e_2$
×												
×	× ×	× ×										
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$\mathfrak{M}_{238}(3, 1, 2 : 2)$	$h_2$	$h_2^*$	$e_2$
$\mathfrak{M}_{238}(1, 3, 2 : 1)$	$\begin{array}{ c c c } \hline & & \\ \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$h_2^*$	$e_2$
$\mathfrak{M}_{238}(1, 3, 2 : 2)$	$\begin{array}{ c c c } \hline & \times \times & \times \\ \hline & & \times \\ \hline & & \times \\ \hline \end{array}$	$h_2^*$	$e_2$
$\mathfrak{M}_{238}(1, 3, 4 : 1)$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$h_6^*$	$e_2$
$\mathfrak{M}_{238}(1, 3, 4 : 2)$	$h_4$	$h_6^*$	$e_2$
$\mathfrak{M}_{255}(2, 2, 4_1 : 1)$	$h_2$	$O_2$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times \times & \times \\ \hline \end{array}$
$\mathfrak{M}_{255}(2, 2, 4_1 : 2)$	$h_2$	$O_2$	$\begin{array}{ c c c } \hline & \times \times & \times \\ \hline \times & \times & \times \\ \hline \times & \times & \\ \hline \end{array}$
$\mathfrak{M}_{256}(2, 0, 1 : 1)$	$h_2$	$O_2$	$\{3, 4\}$
$\mathfrak{M}_{256}(2, 0, 1 : 2)$	$h_2$	$O_2$	$\{8, 4\}$
$\mathfrak{M}_{257}(2, 4, 6 : 1)$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$\begin{array}{ c c c } \hline & & \\ \hline \times \times & & \times \times \\ \hline \times \times & & \times \times \\ \hline \end{array}$	$d_1$
$\mathfrak{M}_{257}(2, 4, 6 : 2)$	$\begin{array}{ c c c } \hline & & \times \\ \hline \times & \times & \times \\ \hline \times & \times & \\ \hline \end{array}$	$\begin{array}{ c c c } \hline & & \\ \hline \times \times & & \times \times \\ \hline \times \times & & \times \times \\ \hline \end{array}$	$d_1$
$\mathfrak{M}_{257}(2, 4, 4_1 : 1)$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$O_3$	$d_1$
$\mathfrak{M}_{257}(2, 4, 4_1 : 2)$	$\begin{array}{ c c c } \hline \times & & \times \\ \hline \times & \times & \times \\ \hline \times & \times & \\ \hline \end{array}$	$O_3$	$d_1$
$\mathfrak{M}_{257}(2, 2, 4_2 : 1)$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline \times & \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$d_1$



$\mathfrak{M}_{257}(2, 2, 4_2 : 2)$	$\begin{array}{ c c c } \hline \times \times & & \\ \hline & \times \times & \\ & \times \times & \\ \hline \end{array}$	$\begin{array}{ c c c } \hline & \times \times & \\ \hline \times & \times & \times \\ \times & & \times \\ \hline \end{array}$	$d_1$
$\mathfrak{M}_{258}(0, 3, 4_2 : 1)$	$h_1$	$O_2$	$e_1$
$\mathfrak{M}_{258}(0, 3, 4_2 : 2)$	$h_3$	$O_3$	$e_1$
$\mathfrak{M}_{258}(2, 3, 2 : 1)$	$h_1$	$\begin{array}{ c c c } \hline \times \times & \times \times & \times \\ \hline & & \times \\ & & \times \\ \hline \end{array}$	$e_1$
$\mathfrak{M}_{258}(2, 3, 2 : 2)$	$\begin{array}{ c c c } \hline & & \times \\ & & \times \\ \hline \times & \times & \\ \times & & \\ \hline \end{array}$	$O_3$	$e_2$
$\mathfrak{M}_{258}(2, 3, 4_2 : 1)$	$\begin{array}{ c c c } \hline & \times & \\ & \times & \\ \hline \times & & \times \\ \times & & \times \\ \hline \end{array}$	$O_3$	$e_1$
$\mathfrak{M}_{258}(2, 3, 4_2 : 2)$	$\begin{array}{ c c c } \hline & & \times \\ & & \times \\ \hline \times & \times & \\ \times & \times & \\ \hline \end{array}$	$O_3$	$e_1$
$\mathfrak{M}_{258}(2, 3, 6 : 1)$	$\begin{array}{ c c c } \hline & \times & \times \\ & \times & \times \\ \hline \times & & \\ \times & & \\ \hline \end{array}$	$O_2$	$e_2$
$\mathfrak{M}_{258}(2, 3, 6 : 2)$	$\begin{array}{ c c c } \hline & \times & \\ & \times & \\ \hline \times \times & & \times \\ & & \times \\ \hline \end{array}$	$O_2$	$e_2$
$\mathfrak{M}_{258}(2, 1, 4_2 : 1)$	$\begin{array}{ c c c } \hline & & \times \\ & & \times \\ \hline \times & \times & \\ \times & \times & \\ \hline \end{array}$	$O_3$	$e_1$
$\mathfrak{M}_{258}(2, 1, 4_2 : 2)$	$h_5$	$O_2$	$e_1$
$\mathfrak{M}_{258}(2, 5, 4_2 : 1)$	$\begin{array}{ c c c } \hline \times & \times & \times \\ \hline \times & \times & \\ & & \times \\ \hline \end{array}$	$O_3$	$e_1$
$\mathfrak{M}_{258}(2, 5, 4_2 : 2)$	$h_2$	$O_2$	$e_1$
$\mathfrak{M}_{258}(2, 5, 6 : 1)$	$\begin{array}{ c c c } \hline & & \times \\ & & \times \\ \hline \times & \times & \\ \times & \times & \\ \hline \end{array}$	$O_2$	$e_2$

$\mathfrak{M}_{258}(2, 5, 6 : 2)$	<table border="1"><tr><td></td><td>x</td><td>xx</td></tr><tr><td></td><td>x</td><td></td></tr></table>		x	xx		x		<table border="1"><tr><td></td><td></td><td></td></tr><tr><td>xx</td><td>xx</td><td></td></tr></table>				xx	xx		$e_2$
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$\mathfrak{M}_{267}(0, 4, 0 : 1)$	$h_3$	$\{2, 19\}$	$d_1$												
$\mathfrak{M}_{267}(0, 4, 0 : 2)$	$h_3$	$\{7, 10\}$	$d_1$												
$\mathfrak{M}_{267}(0, 2, 0 : 1)$	$h_5$	$\{2, 16\}$	$d_1$												
$\mathfrak{M}_{267}(0, 2, 0 : 2)$	$h_5$	$\{4, 13\}$	$d_1$												
$\mathfrak{M}_{268}(0, 5, 0 : 1)$	<table border="1"><tr><td>xx</td><td></td><td></td></tr><tr><td></td><td>xx</td><td></td></tr></table>	xx				xx		$\{21, 12\}$	$e_2$						
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$\mathfrak{M}_{268}(0, 5, 0 : 2)$	<table border="1"><tr><td>xx</td><td></td><td></td></tr><tr><td></td><td>xx</td><td></td></tr></table>	xx				xx		$\{11, 17\}$	$e_2$						
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$\mathfrak{M}_{268}(1, 3, 0 : 1)$	$h_1$	$\{0, 12\}$	$e_2$												
$\mathfrak{M}_{268}(1, 3, 0 : 2)$	$h_1$	$\{0, 17\}$	$e_2$												
$\mathfrak{M}_{268}(1, 3, 2 : 1)$	$h_1$	$\{8, 16\}$	$e_2$												
$\mathfrak{M}_{268}(1, 3, 2 : 2)$	$h_1$	$\{4, 8\}$	$e_2$												
$\mathfrak{M}_{277}(2, 2, 8_1 : 1)$	$h_5$	$d_1$	<table border="1"><tr><td></td><td>x</td><td>x</td></tr><tr><td>xx</td><td>x</td><td>x</td></tr></table>		x	x	xx	x	x						
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$\mathfrak{M}_{333}(1, 1, 3 : 2)$	$h_6^*$	$h_5^*$	$h_2^*$																		

$\mathfrak{M}_{333}(3, 3, 3 : 1)$	$h_1^*$	$h_7^*$	<table border="1"><tr><td>×</td><td>×</td><td>×</td></tr><tr><td></td><td>×</td><td>×</td></tr></table>	×	×	×		×	×												
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$\mathfrak{M}_{336}(3, 0, 1 : 1)$	$h_1^*$	$h_7^*$	$\{1, 17\}$									
$\mathfrak{M}_{336}(3, 0, 1 : 2)$	$h_1^*$	$h_7^*$	$\{0, 17\}$									
$\mathfrak{M}_{336}(1, 1, 0 : 1)$	$h_2^*$	$h_5^*$	$\{13, 17\}$									
$\mathfrak{M}_{336}(1, 1, 0 : 2)$	$h_1^*$	$h_2^*$	$\{11, 13\}$									
$\mathfrak{M}_{336}(1, 2, 0 : 1)$	$h_2^*$	$h_5^*$	$\{0, 22\}$									
$\mathfrak{M}_{336}(1, 2, 0 : 2)$	$h_6^*$	$h_2^*$	$\{11, 17\}$									
$\mathfrak{M}_{337}(3, 4, 2 : 1)$	$h_1^*$	$h_9^*$	$d_1$									
$\mathfrak{M}_{337}(3, 4, 2 : 2)$	$h_6^*$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td></td><td>× ×</td></tr><tr><td></td><td>×</td><td>×</td></tr><tr><td></td><td>×</td><td>×</td></tr></table>	×		× ×		×	×		×	×	$d_1$
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$\mathfrak{M}_{337}(3, 6, 4 : 1)$	$h_5^*$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>×</td><td></td><td>×</td></tr><tr><td></td><td>×</td><td>×</td></tr><tr><td></td><td>×</td><td>× ×</td></tr></table>	×		×		×	×		×	× ×	$d_1$
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$\mathfrak{M}_{346}(2, 1, 0 : 1)$	$h_2^*$	$h_{10}^*$	$\{5, 19\}$									

$\mathfrak{M}_{346}(2, 1, 0 : 2)$	$h_2^*$	$h_{10}^*$	$\{9, 19\}$
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$\mathfrak{M}_{347}(4, 2, 2 : 2)$	$\begin{array}{ c c c } \hline \times & \times \times & \times \\ \hline \times & \times & \times \\ \hline \end{array}$	$h_{10}^*$	$d_1$
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$\mathcal{M}_{356}(2, 0, 0_2 : 1)$	$h_2^*$	$O_2$	$\{9, 20\}$												
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$\mathfrak{M}_{367}(1, 4, 2_1 : 2)$	$h_6^*$	{8, 9}	$d_1$									
$\mathfrak{M}_{367}(0, 4, 0 : 1)$	$h_1^*$	{1, 19}	$d_1$									
$\mathfrak{M}_{367}(0, 4, 0 : 2)$	$h_6^*$	{4, 13}	$d_1$									
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$\mathfrak{M}_{368}(0, 4, 2 : 1)$	$h_6^*$	{4, 19}	$e_2$									
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$\mathfrak{M}_{368}(0, 4, 0 : 1)$	$h_6^*$	{0, 17}	$e_2$									
$\mathfrak{M}_{368}(0, 4, 0 : 2)$	$h_6^*$	{5, 6}	$e_2$									
$\mathfrak{M}_{368}(0, 2, 2 : 1)$	$h_2^*$	{18, 13}	$e_2$									
$\mathfrak{M}_{368}(0, 2, 2 : 2)$	$h_2^*$	{4, 8}	$e_2$									
$\mathfrak{M}_{368}(0, 2, 2 : 3)$	$h_2^*$	{4, 13}	$e_2$									
$\mathfrak{M}_{368}(0, 2, 0 : 1)$	$h_2^*$	{5, 6}	$e_2$									
$\mathfrak{M}_{368}(0, 2, 0 : 2)$	$h_2^*$	{1, 9}	$e_2$									
$\mathfrak{M}_{368}(1, 2, 0 : 1)$	$h_2^*$	{1, 11}	$e_2$									
$\mathfrak{M}_{368}(1, 2, 0 : 2)$	$h_2^*$	{1, 0}	$e_2$									
$\mathfrak{M}_{368}(1, 4, 0 : 1)$	$h_6^*$	{1, 17}	$e_2$									
$\mathfrak{M}_{368}(1, 4, 0 : 2)$	$h_6^*$	{1, 9}	$e_2$									
$\mathfrak{M}_{368}(2, 2, 0 : 1)$	$h_2^*$	{17, 0}	$e_2$									
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$\mathfrak{M}_{377}(2, 4, 4 : 1)$	<table border="1"><tr><td></td><td>×</td><td>×</td></tr><tr><td>×</td><td></td><td>×</td></tr><tr><td>×</td><td>×</td><td>×</td></tr></table>		×	×	×		×	×	×	×	$d_1$	$d_3$
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$\mathcal{M}_{556}(4_1, 0_2, 0_2 : 1)$	$O_2$	$O_4$	$\{0, 19\}$																								
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$\mathfrak{M}_{568}(0_2, 2, 1_2 : 1)$	$O_4$	{3, 4}	$e_2$																					
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$\mathfrak{M}_{568}(0_2, 4_2, 2 : 1)$	$O_3$	{8, 20}	$e_1$																					
$\mathfrak{M}_{568}(0_2, 4_2, 2 : 2)$	$O_2$	{9, 22}	$e_1$																					
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$\mathfrak{M}_{668}(1, 0, 0 : 2)$	{11, 17}	{0, 17}	$e_2$																								
$\mathfrak{M}_{668}(1, 2, 2 : 1)$	{17, 22}	{9, 22}	$e_1$																								
$\mathfrak{M}_{668}(1, 2, 2 : 2)$	{19, 22}	{8, 22}	$e_2$																								
$\mathfrak{M}_{668}(0_2, 0, 2 : 1)$	{11, 17}	{8, 4}	$e_2$																								
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$\mathfrak{M}_{677}(0, 0, 8_1 : 1)$	{19, 21}	$d_1$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>xx</td><td>xx</td><td>x</td></tr><tr><td>xx</td><td>xx</td><td>x</td></tr><tr><td>x</td><td>x</td><td></td></tr><tr><td>x</td><td>x</td><td></td></tr></table>	xx	xx	x	xx	xx	x	x	x		x	x													
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$\mathfrak{M}_{678}(0, 1_2, 6_1 : 1)$	{0, 7}	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>xx</td><td>xx</td></tr><tr><td></td><td>xx</td><td>xx</td></tr><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>		xx	xx		xx	xx	x	x	x	x	x	x	$e_2$												
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$\mathfrak{M}_{778}(8_1, 6_1, 6_1 : 1)$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>x</td><td>xx</td></tr><tr><td></td><td>x</td><td>xx</td></tr><tr><td>xx</td><td>x</td><td>xx</td></tr><tr><td>xx</td><td>x</td><td>xx</td></tr></table>		x	xx		x	xx	xx	x	xx	xx	x	xx	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>xx</td><td>xx</td></tr><tr><td></td><td>xx</td><td>xx</td></tr><tr><td>x</td><td>x</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td></tr></table>		xx	xx		xx	xx	x	x	x	x	x	x	$e_2$
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