$|\chi_3|$  1 -1 -1 1 1 1 1 -1 -1 -1 1 1 1 1 1 -1 1 1  $\mid \chi_9 \mid 1 \quad -E(4) \quad -1 \quad -1 \quad 1 \quad -1 \quad E(4) \quad E(4) \quad E(4) \quad 1 \quad 1 \quad -1 \quad 1 \quad -1 \quad -E(4) \quad -E(4) \quad -E(4) \quad -1 \quad 1 \quad E(4)$  $| \chi_{10} | 1 \quad E(4) \quad -1 \quad -1 \quad 1 \quad -1 \quad -E(4) \quad -E(4) \quad -E(4) \quad 1 \quad 1 \quad -1 \quad 1 \quad -1 \quad E(4) \quad E(4) \quad E(4) \quad -1 \quad 1 \quad -E(4)$  $\chi_{11} \mid 1 - E(4) - 1 \quad 1 \quad 1 \quad -1 \quad E(4) \quad -E(4) \quad E(4) \quad -1 \quad 1 \quad 1 \quad -1 \quad -1 \quad E(4) \quad -E(4) \quad E(4) \quad 1 \quad -1 \quad -E(4)$  $\chi_{12}$  | 1 E(4) -1 1 1 -1 -E(4) E(4) - E(4) -1 1 1 -1 -E(4) E(4) -  $\chi_{13} \mid 1 - E(4) \quad 1 \quad -1 \quad 1 \quad -1 \quad -E(4) \quad E(4) \quad E(4) \quad -1 \quad -1 \quad 1 \quad -1 \quad E(4) \quad E(4) \quad -E(4) \quad 1 \quad 1 \quad -E(4)$  $\chi_{15} \mid 1 - E(4) \quad 1 \quad 1 \quad 1 \quad -1 \quad -E(4) \quad -E(4) \quad E(4) \quad 1 \quad -1 \quad 1 \quad -1 \quad -1 \quad -E(4) \quad E(4) \quad E(4) \quad -1 \quad -1 \quad E(4)$  $ig| \chi_{17} ig| 2 \quad 0 \quad 0 \quad -2 \quad -2 \quad -2 \quad 0 \quad \quad 0 \quad \quad 0 \quad \quad 0 \quad \quad 2 \quad \quad 2 \quad \quad 2 \quad \quad 0 \quad \quad \quad 0 \quad \quad 0 \quad \quad -2 \quad \quad 0$ 

## Trivial source character table of $G \cong C2 \times ((C4 \times C2) : C2)$ at p = 2:

Normalisers  $N_i$ 

Normalisers $N_i$ $N_1$ $N_2$ $N_3$	3 N4 N5	$N_6$ $N_7$ $N_8$ $N_9$ $N_{10}$ $N_{11}$ $N_{12}$ $N_{13}$	3 N <sub>14</sub> N	$N_{15}$ $N_{16}$ $N_{17}$ $N_{18}$ $N_{19}$ $N_{20}$	V <sub>21</sub>   IV <sub>22</sub>   IV <sub>23</sub>   IV <sub>2</sub>	24 N25 N26 N27 N28 N29	N <sub>30</sub> N <sub>31</sub> N <sub>32</sub> N <sub>33</sub> N <sub>34</sub> N <sub>35</sub> N <sub>36</sub> N <sub>37</sub>	N <sub>38</sub> N <sub>39</sub> N <sub>40</sub> N <sub>41</sub> N <sub>42</sub> N <sub>43</sub> N <sub>44</sub> N <sub>45</sub>	N46 N47 N48 N49 N50 N51 N52 N53	N <sub>54</sub> N <sub>55</sub> N <sub>56</sub> N <sub>57</sub> N <sub>58</sub> N <sub>59</sub> N <sub>60</sub> I	V <sub>61</sub>   N <sub>62</sub>   N <sub>63</sub>   N <sub>64</sub>   N <sub>65</sub>   N <sub>66</sub>
p-subgroups of $G$ up to conjugacy in $G$	$_3 \mid P_4 \mid P_5$	$P_6   P_7   P_8   P_9   P_{10}   P_{11}   P_{12}   P_{13}$	$P_{14} \mid P_{14} \mid P_{14}$	$P_{15} \mid P_{16} \mid P_{17} \mid P_{18} \mid P_{19} \mid P_{20} \mid$	$P_{21} \mid P_{22} \mid P_{23} \mid P_{23}$	$P_{24} \mid P_{25} \mid P_{26} \mid P_{27} \mid P_{28} \mid P_{29}$	$P_{30}$ $P_{31}$ $P_{32}$ $P_{33}$ $P_{34}$ $P_{35}$ $P_{36}$ $P_{37}$	$P_{38}$ $P_{39}$ $P_{40}$ $P_{41}$ $P_{42}$ $P_{43}$ $P_{44}$ $P_{45}$	$P_{46}$ $P_{47}$ $P_{48}$ $P_{49}$ $P_{50}$ $P_{51}$ $P_{52}$ $P_{53}$	$P_{54}$ $P_{55}$ $P_{56}$ $P_{57}$ $P_{58}$ $P_{59}$ $P_{60}$ $P_{60}$	$P_{61} \mid P_{62} \mid P_{63} \mid P_{64} \mid P_{65} \mid P_{66}$
Representatives $n_j \in N_i$	$a \mid 1a \mid 1a$	1a   1a   1a   1a   1a   1a   1a   1a	1a   1	$1a \mid 1a \mid 1a \mid 1a \mid 1a \mid 1a \mid$	$1a \mid 1a \mid 1a \mid 1e$	$a \mid 1a \mid 1a \mid 1a \mid 1a \mid 1a \mid$	1a   1a   1a   1a   1a   1a   1a   1a	1a   1a   1a   1a   1a   1a   1a   1a	1a   1a   1a   1a   1a   1a   1a   1a	1a   1a   1a   1a   1a   1a   1a   1a	$1a \mid 1a \mid 1a \mid 1a \mid 1a \mid 1a \mid$
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 2 \cdot \chi_{17} + 2 \cdot \chi_{18} + 2 \cdot \chi_{19} + 2 \cdot \chi_{20}  32  0  0$	0 0	0 0 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}}{16 \cdot 16 \cdot 16} \cdot \frac{16 \cdot 16}{16} \cdot \frac{16}{16} \cdot 1$	0 0		0 (		0 0 0						
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}}{1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}$	3 0 0		0 (	0 0 0 0 0 0	0 0 0 0						
	16 0		0 (		0 0 0 0						
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20}  16  0  0$	16 0		0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0					0 0 0 0 0
$\begin{bmatrix} 1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 2 \cdot \chi_{20} & \begin{vmatrix} 16 & 0 & 0 & 0 \end{vmatrix} & 0 \end{vmatrix}$	0   16		0   0	0   0   0   0   0   0	0 0 0 0	0   0   0   0   0   0					0 0 0 0 0 0
$\begin{bmatrix} 1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} & 16 & 0 & 0 \end{bmatrix}$	0 0	8 0 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0					0 0 0 0 0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} + 16 = 0$	0 0	0 8 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0		0 0 0 0 0 0 0			0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}  16  0  0$	0 0	0 0 16 0 0 0 0	0 (		0 0 0 0						
	0 0		0 (		0 0 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20}}{16} \frac{16}{16} \frac{0}{16} $	0 0	0 0 0 8 0 0 0	0 (		0 0 0 0						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 2 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}  16  0  0$	0 0	0 0 0 0 16 0 0	0 (	0 0 0 0 0 0	0 0 0 0						0 0 0 0 0
$\boxed{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 16 \mid 0 \mid 0}$	0 0		0 (		0 0 0 0	0 0 0 0 0 0					0 0 0 0 0 0
$ \begin{vmatrix} 1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} \end{vmatrix} \ 16 \ \begin{vmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$	0 0		0 (	0   0   0   0   0   0	0 0 0 0	0   0   0   0   0   0					0   0   0   0   0   0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20} \end{vmatrix} 8 \begin{vmatrix} 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{vmatrix}$	0 0	0 4 0 4 0 8 0 4	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 8 \mid 0 \mid 8$	0 0	0 0 8 0 0 8 0 0	8 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0					0 0 0 0 0
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 2 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 2 \cdot \chi_{13} + 2 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}} = 0$	0 0	8 0 0 0 0 0 0	0 8	8 0 0 0 0 0	0 0 0 0						
	0 0		0 0		0 0 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{8}  0  0$	8 0		0 (	0 8 0 0 0 0	0 0 0 0						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 8 \mid 8 \mid 0$	0 0	0 0 0 8 8 0 0	0 (	0 0 8 0 0 0	0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0
$ \left[ 1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20} \right] \left. \begin{array}{c} 8 & 8 & 0 \\ \end{array} \right. $	0 8		0_ (	0 0 8 0 0	0 0 0	0 0 0 0 0 0					0 0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} & 8 & 0 & 8 \\$	0 8	0 0 0 8 0 0	0 (	0 0 0 0 8 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0		0 0 0 0 0 0	0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20} \mid 8 \mid 8 \mid 0$	0 0	0 0 0 4 0 0 4 0	0 (	0 0 0 0 0 4	0 0 0 0						0 0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}} \times 0 = 0$	0 0		0 0	0 0 0 0 0 0	8 0 0 0	0  0  0  0  0					0 0 0 0 0
70	0 0		0 0		0 8 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_2 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + $	0 0		0 0		0 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + $	0 0		0 0		0 0 0	4 0 0 0 0 0					
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_{10} + \chi_{10}$	0 0	4 0 0 0 0 8 4 0	<u> </u>	0 0 0 0 0	0 0 0 4	4 0 0 0 0		0 0 0 0 0 0			0 0 0 0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 8 \mid 8 \mid 8$	8 0		0 (	0 0 0 0 0 0	0 0 0 0	0 8 0 0 0 0					0 0 0 0 0 0
$\left[1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 1 \cdot \chi_{3} + 0 \cdot \chi_{4} + 1 \cdot \chi_{5} + 0 \cdot \chi_{6} + 1 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20}\right]  8  \left[0  \left[0$	8 8		0 0	0 0 0 0 0 0	0 0 0 0	0   0   8   0   0   0					0 0 0 0 0 0
$\boxed{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}  8  8  0  0  0  0  0  0  0  0$	0 0	4 4 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 4 0 0					0 0 0 0 0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 8 \mid 0 \mid 8$	0 0	0 8 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 8 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \mid 8 \mid 0 \mid 0$	0 0	4 0 0 4 8 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	0  0  0  0  4		0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20}} \times 0 = 0$	8 0	4 4 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0		4 0 0 0 0 0 0 0				0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 1 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}$	0 0		0 (		0 0 0 0						
	8 0		0 0		0 0 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_{10} + 0 \cdot$	0 0		0 (		0 0 0 0						
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}}{1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +$	0 0		0 (		0 0 0 0						
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20} \mid 8 \mid 8 \mid 0$	0 0		0 (		0 0 0 0						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20} \mid 8 \mid 0 \mid 0$	0 0	4 0 8 0 0 0 4 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0 0					0 0 0 0 0 0
$ \left[ 1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20} \right] \left. \begin{array}{c} 8 & 0 & 0 \\ \end{array} \right. $	8 0		0 0	0 0 0 0 0 0	0 0 0 0	0   0   0   0   0   0					0 0 0 0 0 0
$\left  \ 1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} \ \right  \ 8 \ \left  \ 0 \ \right  \ 0 \ \left  \ 0 \ \left  \ 0 \ \right  \ 0 \ \left  \ 0 \ \left  \ 0 \ \right  \ 0 \ \left  \ 0 \ \left  \ 0 \ \right  \ 0 \ \left  \ 0 \ \left  \ 0 \ \left  \ 0 \ \right  \ 0 \ \left  \ 0$	0 8		0   0	0   0   0   0   0   0	0   0   0   0	0   0   0   0   0   0					0   0   0   0   0   0
$\boxed{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}  8  8  0  0  0  0  0  0  0  0$	0 0		0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0 0		4 0 0 0 0 0 0 0			0 0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} \mid 8 \mid 0 \mid 0$	0 8	0 4 0 0 0 0 4 0	0 (	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 4 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20} \end{vmatrix} \ 4  0  0$	4 4	0 0 0 0 0 4 0 0	0 (	0 0 0 0 0	0 0 0 0	0 0 4 0 0 0		0 0 2 0 0 0 0			0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = 0$	4 0	2 2 4 2 4 0 2 0	0 (	0 4 0 0 0 0	0 0 2 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 2 0 2 0 2 0 0				
$\frac{1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 1 \cdot \chi_{5} + 0 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 1 \cdot \chi_{5} + 0 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}} = 0$	0 0		1 1	4 0 0 0 0 0	4 0 0 4	$\frac{3}{4}$					
	0 0	4 0 0 4 4 0 0	0 4	4 0 0 0 0 0	0 4 0 9						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 0 & 4 \\ 0 & 4 & 0 \end{vmatrix}$	0 4	4 0 0 4 4 0 0 0	0 4	4 0 0 0 4 0	0 4 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 0 & 0 \\ 0 & 0 & 0 \end{vmatrix}$	4 4		U (	0 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 0 4 0 0 0			0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 0 & 4 \end{vmatrix} \end{vmatrix}$	0 0	0 4 4 4 0 4 0 4	4 (	0 0 0 0 0	0 4 0 0	0 0 0 0 4 0		0 0 0 0 0 0 4		0 0 0 0 0 0	0 0 0 0 0
$\boxed{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}  4  0  0}$	4 0		0 (	0   4   0   0   0   0	0 0 0 0	0 0 0 0 0 0					0 0 0 0 0
$\boxed{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}  4  4  4  4  4  4  4  4  4  $	4 0		0 (	0 0 0 0 0 0	0 0 0 0	$0 \mid 4 \mid 0 \mid 0 \mid \overline{0 \mid 0} \mid$					0   0   0   0   0   0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \end{vmatrix} \ 4  4  4  4  4  4  4  4  4  4$	4 0	0 0 0 0 0 0 0	0 (	0 0 0 0 0 0	0 0 0 0	$0 \mid 4 \mid 0 \mid 0 \mid 0 \mid 0$	0 0 0 0 0 4 0	0 0 0 0 0 0 0	0 0 4 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = \frac{1}{4} + \frac{1}{$	4 0		0 (	0 0 0 0 0 0	0 0 0 0	0 4 0 0 0 0	0 0 0 0 4 0 0 0	0 0 0 0 0 0 0 0	0 0 0 4 0 0 0		0 0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = \frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = \frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = \frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} = \frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_{19} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + $	4 0		0 (	0 0 0 0 0 0	0 0 0 0	$0 \   \ 4 \   \ 0 \   \ 0 \   \ 0 \   \ 0$		4 0 0 0 0 0 0 0	0 0 0 0 4 0 0		0 0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}} + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 +$	4 0		0 0		4 4 4 0	$\frac{1}{0} + \frac{1}{4} + \frac{1}{0} + \frac{1}$					
	4 0	4 4 0 0 0 0 0 0	10 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0 0 0	$\frac{1}{0} + \frac{1}{4} + \frac{0}{0} + \frac{0}{4} + \frac{0}{4} + \frac{0}{0}$					
$\frac{1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_9 + 0 \cdot \chi_9 + 0 \cdot \chi_9 + 0 \cdot \chi_9 + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}} = \frac{4}{4} + \frac{4}{4} +$	4 0		1 1 1	0 4 4 4 4 0	0 0 0 0	0 4 4 0 0 0					
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{4} + \frac{4}{4} + \frac{4}{$	4 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4 (	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20} \begin{vmatrix} 4 & 4 & 0 \\ 4 & 0 & 0 \end{vmatrix}$	0 4		0 (	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 1 \cdot \chi_{5} + 0 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 4 & 0 \\ 4 & 0 & 0 \end{vmatrix}$	0 0	2 2 0 2 4 4 2 2	0 (	0 0 4 0 0 2	0 0 0 2	2 0 0 2 0 2	0 2 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 2 0 0 0 0 0	0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 0 & 4 \end{vmatrix} \end{vmatrix}$	0 4		0 (	0 0 0 0 4 0	4 0 0 0	0 0 0 0 4 0					0 0 0 0 0 0
$1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 0 \cdot \chi_{5} + 0 \cdot \chi_{6} + 1 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 4 & 4 & 0 \end{vmatrix} $	0  0	0 0 0 0 4 4 0 0	0 (	0 0 4 0 0 0	0  0  0  0	0 0 0 0 0 0		2 0 0 0 0 0 0 0			0 0 0 0 0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20} \end{vmatrix} 4 \end{vmatrix} 4 \end{vmatrix} 0$	0 4	0 0 4 0 0 0 0 0	0 (	0 0 0 4 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 2 0 0	2 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 2 0 0	0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{2} \cdot \frac{2}{2} \cdot \frac{2}{$	2 2		2 2	2 2 2 2 2 2 2	2 2 2 2	$2 \mid 2 \mid 2 \mid 2 \mid 2 \mid 2 \mid 2 \mid$					0 0 0 0 0 0
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}$	2 0		0 5	2 0 0 0 0 0	0 0 0 0	$\frac{1}{0}$ $\frac{1}{2}$ $\frac{1}{0}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{0}$	2 0 2 0 0 0 0 0	2 0 0 0 0 0 0 0		0 0 0 0 0 0 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\frac{1}{1}\frac{\chi_{1}}{\chi_{1}} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 0 \cdot \chi_{5} + 1 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 2 \cdot \chi_{20} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 2 \cdot \chi_{20} + 0 \cdot \chi_{10} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{10} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{10} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{19} +$	2 2		2 0	0 2 2 2 2 0	0 0 0	$\frac{1}{0}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{0}$ $\frac{1}{0}$ $\frac{1}{0}$					$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	2 2		0 0		9 9 9 0						$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\frac{1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}}{2}  2  2  2  2  2  2  2  2  2 $	2 0		0 0	0 0 0 0 0 2	0 0 0 0	$\begin{bmatrix} 0 & 2 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0$					0 2 0 0 0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 (	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 2 & 2 & 2 \\ 2 & 2 & 2 \end{vmatrix}$	2 0		<u> </u>	0 0 0 0 2	2 2 2 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		2 0 0 0 0 0 0		0 0 0 0 0	
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} \begin{vmatrix} 2 & 2 & 2 \\ 2 & 2 & 2 \end{vmatrix}$	2 0		0 2	2 0 0 0 0 0	0 0 0	0 2 0 2 2 0		0 0 0 0 0 0 0		0 0 0 0 0 0	0 0 0 2 0
$11. x_1 \pm 0. x_2 \pm 0. x_3 \pm 0. x_4 \pm 0. x_5 \pm $	1   1	1   1   1   1   1   1   1   1	1   1	$1 \mid 1 \mid 1 \mid 1 \mid 1 \mid 1 \mid 1$	$1 \mid 1 \mid 1 \mid 1$	$1 \mid 1 \mid 1 \mid 1 \mid 1 \mid 1 \mid 1$	1   1   1   1   1   1   1   1				1   1   1   1   1   1

 $1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot$ 

## $P_2 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong \mathbb{C}_2$ $P_3 = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong \mathbb{C}_2$

 $P_4 = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong \mathbb{C}_2$  $P_5 = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)]) \cong \mathbb{C}_2$  $P_6 = Group([(1,24)(2,28)(3,15)(4,13)(5,31)(6,11)(7,21)(8,19)(9,32)(10,17)(12,26)(14,25)(16,23)(18,30)(20,29)(22,27)]) \cong \mathbb{C}2$  $P_7 = Group([(1,11)(2,17)(3,4)(5,23)(6,24)(7,8)(9,27)(10,28)(12,14)(13,15)(16,31)(18,20)(19,21)(22,32)(25,26)(29,30)]) \cong \mathbb{C}_2$  $P_8 = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29)]) \cong \mathbf{C2}$ 

 $P_9 = Group([(1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30)]) \cong \mathbf{C2}$ 

 $P_{10} = Group([(1,14)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29)]) \cong C2$  $P_{11} = Group([(1,26)(2,30)(3,31)(4,16)(5,15)(6,14)(7,32)(8,22)(9,21)(10,20)(11,25)(12,24)(13,23)(17,29)(18,28)(19,27)]) \cong \mathbb{C}^2$  $P_{12} = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \cong \mathbb{C}^2$ 

 $P_{32} = Group([(1,27,16,28)(2,31,22,11)(3,8,25,30)(4,18,26,19)(5,17,6,32)(7,15,29,14)(9,24,10,23)(12,20,13,21),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong C4$  $P_{34} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,17,25,28),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C4$  $P_{36} = Group([(1, 18, 16, 19)(2, 25, 22, 3)(4, 27, 26, 28)(5, 7, 6, 29)(8, 31, 30, 11)(9, 13, 10, 12)(14, 17, 15, 32)(20, 24, 21, 23), (1, 16)(2, 22)(3, 25)(4, 26)(5, 6)(7, 29)(8, 30)(9, 10)(11, 31)(12, 13)(14, 15)(17, 32)(18, 19)(20, 21)(23, 24)(27, 28)]) \cong C4$ 

 $P_{38} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong \mathbf{C4}$ 

 $P_{40} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,27,26,28)(5,27,26,28)(5,27,26,28), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(5,27,26,28)(5,27,26,28), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(4,27,26,28)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(20,24,21,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(20,24,22,23), \\ (1,18,16,19)(2,25,22,3)(2,24,22,23), \\ (1,18,16,19)(2,25,22,3)(2,24,22,23), \\ (1,18,16,19)(2,25,22,23), \\ (1,18,16,19)(2,25,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ (1,18,16,12,22,23), \\ ($  $P_{42} = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(18,22)(20,22)(23,25)(27,29), \\ (1,3)(2,7)(4,11)(5,12)(23,23)(23,2$  $P_{44} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,12)(12,23)(13,24)(16,26)(18,27)(19,28)(22,29)(26,31)(30,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,15)(17,32)(18,19)(20,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,29)(26,31)(30,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(14,15)(17,23)(18,19)(19,28)(19,$ 

 $P_{47} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(2,20,13,21)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(12,20)(13,23)(12,20)(13$  $P_{49} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(2,32)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(11,24)(12,25)(11,24)(12,25)$  $P_{50} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(12,25)(14,26)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)(12,2$  $P_{54} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)$ 

 $P_{45} = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,13)(2,19)(3,24)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)(29,29)(21,32)(29,29)(29,29)(21,32)(29,29$ 

 $P_{55} = Group([(1,14)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(12,29)(24,25)(28,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(12,29)(24,25)(28,29), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(12,29)(24,25)(24$  $P_{56} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(15,24)(16,25)(15,24)(16,25)(15,24)(16,25)(16$  $P_{59} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(22,30)(25,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(20,30)(23,31)(27,32), (1,4)(2,8)(21,29)(21,30)(24,31)(27,32), (1,4)(2,8)(21,29)(21,30)(24,31)(27,32), (1,4)(2,8)(21,29)(21,30)(24,31)(27,32), (1,4)(2,8)(21,29)(21,30)(24,31)(27,32), (1,4)(21,29)(21,30)(24,31)(27,32), (1,4)(21,29)(21,30)(2$  $P_{60} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(29,32)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(11,24)(12,25)(12$ 

 $P_{61} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(11,24)(12,23)(13,24)(13$  $P_{63} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(17,23)(17,24)(17,$  $P_{64} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,6)(21,20)(24,32)(24,32), (1,6)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,32)(24,$  $P_{65} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,6)(2,10)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,6)(2,10)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,25)(15,26)(17,27)(19,29)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,24)(11,24)(12,25)(14,26)(17,28)(19,24)($  $P_{66} = Group([(1,5)(2,9)(3,12)(4,14)(6,15)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,20,26,30)(17,31,24)(16,25)(14,20)(13,24)(16,25)(14,20)(13,24)(16,25)(14,20)(13,24)(16,25)(14,20$ 

 $N_1 = Group([(1,2,6,10)(3,13,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20)(25,29)(26,31)(30,32), (1,5)(2,9)(21,30)(25,31)(27,32)] \\ \cong C_2 \times ((C_4 \times C_2) : C_2)(11,23)(13,24)(16,25)(12,23)(12,23)(13,24)(16,25)(12,23)($  $N_2 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,28)(22,29)(26,31)(30,32),(1,4)(2,8)(21,29)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(2,9)(21,30)(24,31)(28,32),(1,5)(21,20)(21,30)(24,31)(28,32),(1,5)(21,20)(21,30)(24,31)(28,32),(1,5)(21,30)(21,30)(21,31)(21,30)(21,31)(21$  $N_3 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,28)(22,29)(26,31)(30,32),(1,4)(2,8)(21,29)(24,31)(25,29)(26,31)(30,32),(1,4)(2,8)(21,29)(24,31)(25,29)(26,31)(30,32),(1,4)(2,8)(21,29)(24,31)(25,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(12,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(2,8)(21,29)(26,31)(30,32),(1,4)(21,29)(21,29)(21,30)(24,31)($  $N_4 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(16,23)(16$  $N_5 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(12,23)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(12$  $N_6 = Group([(1,24)(2,28)(3,15)(4,13)(5,31)(6,11)(7,21)(8,19)(9,32)(10,17)(12,28)(13,24)(16,25)(14,26)(17,28)(12,23)(13,24)(16,25)(14$  $N_7 = Group([(1,11)(2,17)(3,4)(5,23)(6,24)(7,8)(9,27)(10,28)(12,23)(13,24)(16,25)(24,20)(25,26)(29,30), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(21,27)(10,28)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(12$  $N_8 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,28)(22,29)(26,31)(30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(2,9)(21,30)(24,31)(28,32), (1,5)(21,30)(24,31)(28,32), (1$  $N_{10} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,12)(11,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(16,25)(16$  $N_{11} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(25,31)(29,32),(1,5)(2,9)(21,30)(24,31)(25,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(21,29)(21,20)(2$  $N_{12} = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(12,24)(13,23)(17,29)(18,28)(19,27)(19,28)(22,29)(26,31)(29,22)(11,24)(12,25)(14,26)(17,28)(12,24)(13,23)(17,29)(18,28)(19,27)(19,28)(19,28)($ 

 $N_{14} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(13,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,28)(12,18)$  $N_{15} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,24)(2,28)(3,15)(4,13)(5,31)(6,11)(7,21)(8,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times (C4 \times C2) : C2) \times ((C4 \times C2) : C2) \times ((C$  $N_{16} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,31)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,28,19)(14,10)(17,19)(18,32)(20,21)(23,24)(27,28), (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,28)(21,28)(22,29)(26,31)(30,32)]) \\ = C2 \times ((C4 \times C2) \times (C4 \times C2) \times ($  $N_{17} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(12,29)(24,25)$  $N_{18} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(22,30)(25,31)(27,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \\ \cong C2 \times ((C4 \times C2) : C2)(11,24)(12,25)(14,26)(17,28)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(17,2$  $N_{19} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(28,32)(14,20,26,30)(17,31,28)(21,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4)(28,32)(14,20,26,30)(17,31,28)(21,20)(12$  $N_{20} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(27,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,29)(21,30)(21,32)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)(21,32)(21,29)$  $N_{21} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(24,32)(28,32), (1,3)(24,32)(28,32), (1,3)(24,32)(28,32), (1,3)(24,32)(28,32), (1,3)(24,32)(28,32), (1,3)(24,32)$  $N_{22} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)(23,26)(27,30), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,24)(16,26)(18,27)(19,29)(21,30)(21,29)(21,2$  $N_{23} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(29,32), \\ (1,3)(2,7)(4,11)(5,12)(13,23)(13,23)(13,24)(16,25)(13,24)(16,25)(13,24)(16,25)(13,24)(16,25)($  $N_{25} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,12)(14,23)(13,24)(16,25)(24,21)(24,23)(14,20,26,30)(17,31,28,23), (1,2,6,10)(3,13)(4,15)(5,16)(7,12)(6,13)(8,17)(9,18)(10,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,12)(11,23)(13,24)(16,25)(12,23)(12,2$  $N_{26} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3)(2,7)(4,11)(5,12)(6,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), (1,3)(2,7)(4,11)(5,12)(6,13)(14,15)(17,32)(18,19)(20,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times ((C4 \times C2) : C2$  $N_{28} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,24)(16,22)(27,25,19,12)(11,23)(13,25)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times (C4 \times C2) : C2) \times ((C4 \times C2) : C2) \times ((C4$  $N_{29} = Group([(1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,20)(24,25)(28,29), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(18,22)(24,25)(28,29), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,26)(17,27)(18,22)(24,25)(28,29), (1,3)(2,7)(4,11)(5,12)(6,13)(17,21)(18,22)(24,25)(28,29), (1,3)(2,7)(4,11)(5,12)(6,13)(17,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(18,22)(24,25)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(27,21)(28,29)(28,29), (1,3)(28,29)(28,29), ($  $N_{31} = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29), \\ (1,4)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29), \\ (1,4)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29), \\ (1,4)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29), \\ (1,4)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(11,24)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(12,23)(13,24)(16,26)(17,28)(1$  $N_{32} = Group([(1,27,16,28)(2,31,22,11)(3,8,25,30)(4,18,26,19)(5,17,6,32)(7,15,29,14)(9,24,10,23)(12,20,13,21),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28),(1,4)(2,8)(3,11)(5,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(29,32),(1,5)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(19,29)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(24,31)(29,32)(21,30)(21,$  $N_{36} = Group([(1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(13,24)(27,28),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(17,27)(19,29)(21,30)(24,31)(29,32),(1,5)(29,32)(19,29)(21,30)(24,31)(29,32),(1,5)(29,32)(29,3$ 

 $N_{39} = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,5)(2,9)(3,12)(4,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(12,23)(12$  $N_{40} = Group([(1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,17,15,32)(20,24,21,23),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(29,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(29,32),(1,5)(29,32)(29,$  $N_{41} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,31)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(20,22)(23,25)(27,29), \\ (1,2)(2,21)(3,24)(16,25)(20,27)(21,28)(22,29)(26,31)(20,22)(23,25)(27,29), \\ (1,2)(2,21)(3,24)(16,25)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(26,31)(20,27)(21,28)(22,29)(22,29)(23,$  $N_{42} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23)] \cong C2 \times ((C4 \times C2) : C2) \times ((C4 \times C2) :$ 

 $N_{43} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23)] \cong C2 \times ((C4 \times C2) : C2) \times ((C4 \times C2) :$  $N_{44} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,3)(2,7)(4,11)(5,12)(6,13)(8,27)(19,29)(21,30)(24,31)(29,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(16,25)(16,25)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32)] \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(5,14)(6,15)(17,27)(19,29)(21,30)(24,31)(28,32) \\ (1,4)(2,8)(3,11)(2,3)(3,12)(24,31)(24,$  $N_{45} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(23,26)(27,30), (1,13)(2,19)(3,6)(4,24)(5,25)(7,10)(8,28)(9,29)(11,15)(12,16)(14,31)(17,21)(18,22)(20,32)(17,21)(18,22)(20,32)(18,21)(18,22)(20,32)(18,21)(18,22)(20,32)(18,21)(18,22)(20,32)(18,21)(18,22)(20,32)(18,22)$ 

 $N_{47} = Group([(1,27,16,28)(2,31,22,11)(3,8,25,30)(4,18,26,19)(5,17,6,32)(7,15,29,14)(9,24,10,23)(12,20,13,21)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,20,26,30)(17,31,28,23),\\ (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(17,28)(22,29)(26,31)(30,32)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times (C4 \times C2) : C2) \times ((C4 \times C2) : C2) \times ((C4$  $N_{48} = Group([(1, 18, 16, 19)(2, 25, 22, 3)(4, 27, 26, 28)(5, 7, 6, 29)(8, 31, 30, 11)(9, 13, 10, 12)(14, 27, 24, 32)(14, 20, 26, 30)(17, 31, 28, 23), (1, 2)(4, 20, 26, 30)(27, 32), (1, 2)(4, 20, 26, 30)(27, 32)(19, 20)(21, 30)(24, 31)(29, 32)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times ($  $N_{49} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,17,25,28), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(29,20)(21,30)(21,$  $N_{50} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(25,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(27,32$  $N_{51} = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)($  $N_{52} = Group([(1,11)(2,17)(3,4)(5,23)(6,24)(7,8)(9,27)(10,28)(12,24)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32), (1,2,6,10)(3,13)(4,15)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32)(17,27)(19,29)(21,30)(24,31)(27,32)(17,27)(19,29)(21,30)(21,30)(21,31)(21,3$  $N_{53} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)($  $N_{55} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,17)(9,20)(13,24)(16,25)(22,29)(26,31)(30,32), (1,14)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,22)(24,25$ 

 $V_{56} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,12)(11,27,24,32)(14,20,26,30)(17,31,28,23)]) \\ \cong C2 \times ((C4 \times C2) : C2) \times ($  $N_{57} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,6)(2,10)(3,13)(4,5)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(27,32),(1,14)(2,20)(3,23)(4,5)(6,20)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(11,24)(12,25)(14,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(18,29)(21,22)(24,25)(24$  $N_{58} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32),(1,6)(21,31)(25,$  $N_{60} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,29)(21,24)(12,25)(14,20)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(13,25)(15,24)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)(15,24)(15,25)($  $N_{61} = Group([(1,2,6,10)(3,18,13,29)(4,815,21)(5,916,22)(7,25,19,12)(11,27)(4,28)(22,29)(24,31)(25,31)(27,32)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32)(17,28)(22,29)(26,31)(30,32)] \\ \cong C_{2} \times ((C_{4} \times C_{2}):C_{2})(1,2_{5})($  $N_{62} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,17,25,28), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,18)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,18)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,18)(13,29)(24,31)(28,32), (1,2,6,10)(3,18)(13,29)(14,20)(1$  $N_{63} = Group([(1,18,16,19)(2,25,22,3)(4,27,26,28)(5,7,6,29)(8,31,30,11)(9,13,10,12)(14,27,24,32)(14,20,26,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(29,32), (1,5)$ 

 $N_{64} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(2,9)(21,30)(24,31)(27,32), (1,5)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,32)(17,28)(27,29)(27,29)(27$  $N_{65} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,17,25,28), (1,11)(2,17)(3,4)(5,23)(6,24)(7,8)(9,27)(10,28)(12,14)(13,15)(16,31)(18,20)(19,21)(22,32)(25,26)(29,30), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(4,15)(5,16)(17,27)(19,29)(21,30)(24,31)(28,32), (1,2,6,10)(3,13)(28,32)(38,32), (1,2,6,10)(38,32), (1,2,6,10)(38,32), (1,2,6,10)(38,32), (1,2,6,10)(38,32), (1,2,$  $N_{66} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(25,31)(27,32),(1,5)(2,9)(21,30)(24,31)(25,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,25)(12,23)(13,24)(16,25)(13,24)(16,25)(13,24)(16,25)(13,24)(16,25)(16,2$