Given $|G| = 2^4 \cdot 3$ $\boxed{\begin{array}{l} |2\text{-SSG}| = 16 \\ |3\text{-SSG}| = 3 \end{array}}$

$N(2) \equiv 1 \bmod 2 \Rightarrow N(2)$ odd

also $N(2) \mid 48$ so $N(2) = \boxed{1 \text{ or } 3}$

$N(3) \equiv 1 \bmod 3 \Rightarrow N(3) = 3n+1$

for what n does $3n+1 \mid 48$

$n = 0, 1, 5 \Rightarrow N(3) = \boxed{1, 4, 16}$

Find compatible outcomes:

~~If N(3) = 1 then 48 - 3 el left~~
~~so N(2) = 15 or 3 ... 48 - 2 non-id left~~
~~solution is N(3) = 1 ; N(2) = 15~~

$N(2) = 1$ then 15 el $+ e_G$ forces

$N(3) =$ then $16 \cdot 2$ el. $+ e_G$

48 el tot.

$N(2) = 3$ 45 non-id $+ e_G$

$N(3) = 1$ 2 non-id $+ e_G$

48 el tot.

$|A_5| = 2^2 \cdot 3 \cdot 5$

$|2\text{-SSG}|\ 4$
3 non id
1 id

$N(2) \equiv 1 \bmod 2$ $N(2)$ odd

$N(2) \mid 60$ $1, 3, 5, 15$

$|3\text{-SSG}| =$
2 non id
1 id

$N(3) \equiv 1 \bmod 3 \Rightarrow N(3) = 3n+1$

$3n+1 \mid 60 \Rightarrow N(3) = 1, 4, \text{or } 10$

$n = 0, 1, 3$

$N(5) \equiv 1 \bmod \Rightarrow 5n+1$

$5n+1 \mid 60$

$n = 0, 1,$ $N(5) = 1, 6$

N(2)	$\boxed{1}$,	3, 5, 15
N(3)	$\boxed{1}$,	4, 10
N(5)	$\boxed{1}$	6

Case 1 N(5) = 1   4 non id 1 id

55 non id left

N(3) = 1   2 non-id   53 non id

N(5) : DNE

Case 2 N(5) = 1   1 id

N(3) = 4   4

8

Case 3 ~~N(3) = 1~~ ~~[illegible]~~ N(5) = 1   non id 4

N(3) = 10   20

2	3	5
any	1	1
any	4	1
any	10	1
any	4	6

2	3	5

$N(5) = 6$ 24 non-id

$N(3) = 4$ 8

$N(2) =$ [illegible] no!

$N(5) = 6$ 24

$N(3) = 10$ 20

$N(2) = 5$