

Compute the following in both D_8 and D_9 .

1. $(\mu\rho^2)(\mu\rho^3)$

2. $(\mu\rho^2)^{-1}$

3. $(\mu\rho^3)(\mu\rho^2)^3$

4. $\mu^6\rho^{25}$

5. $\langle\mu\rho^3\rangle$

6. $\langle\rho^2\rangle$

7. Find all subgroups of D_4 .