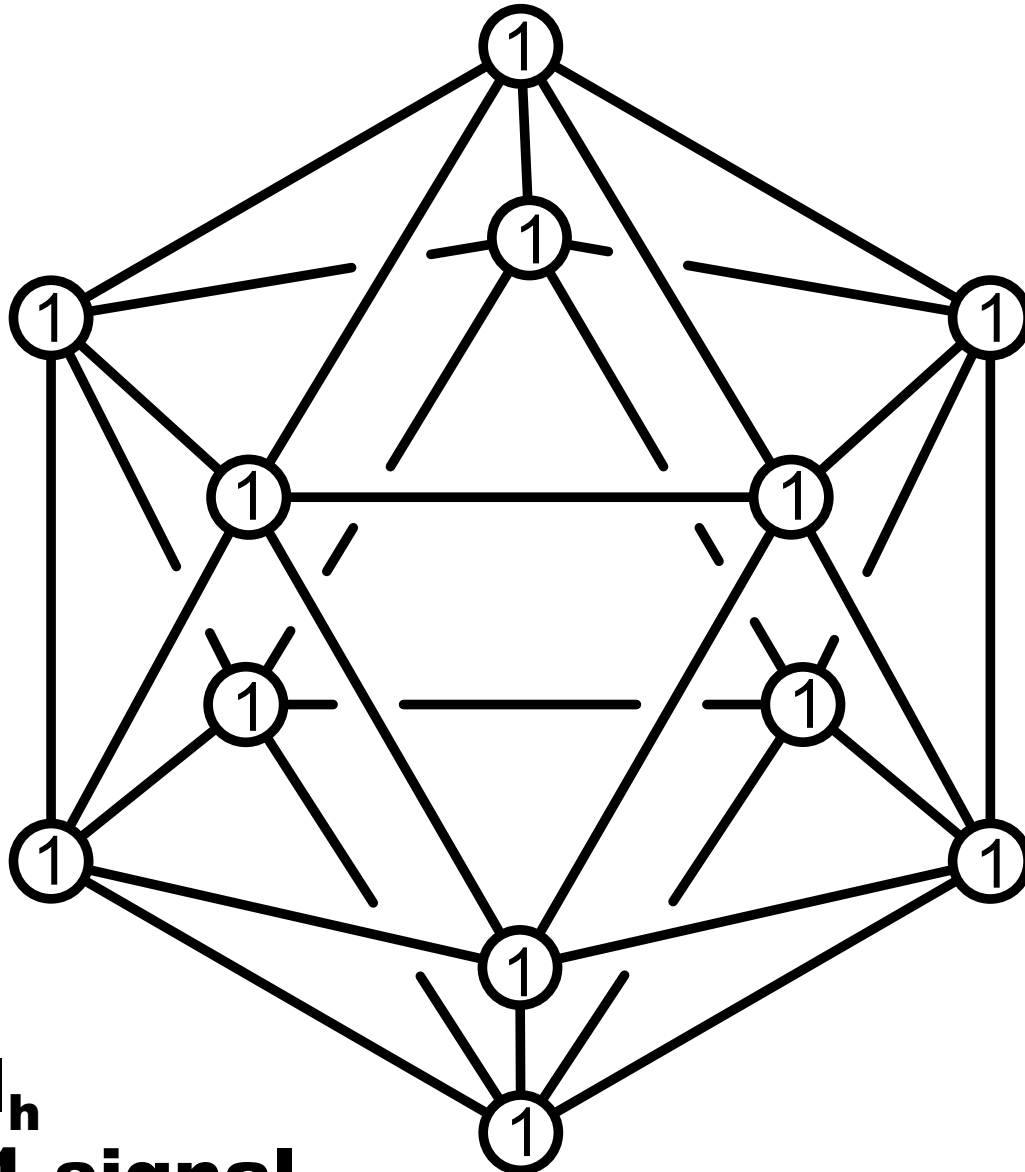
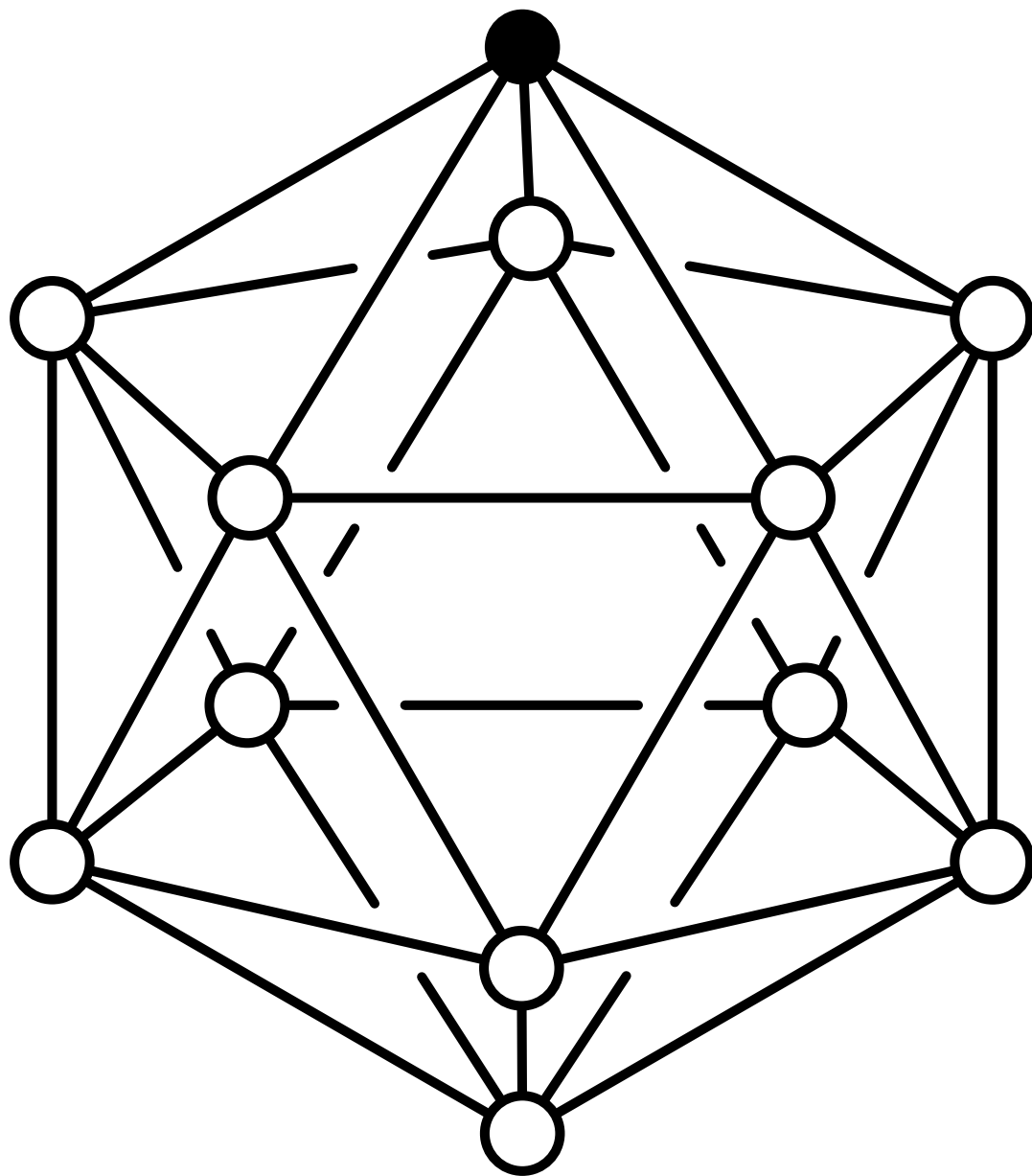


○ = BH



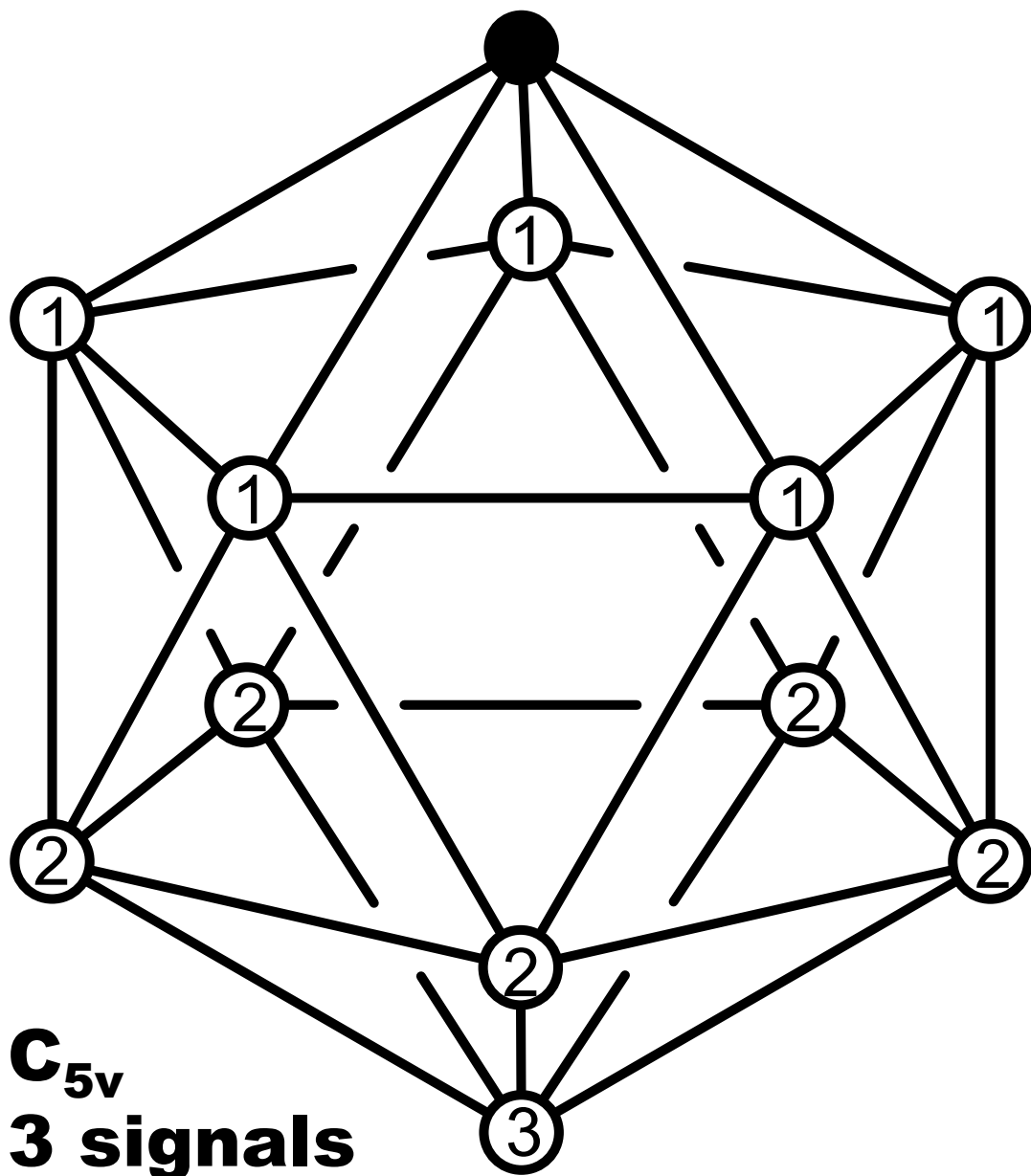
○ = BH

$l_h$   
**1 signal**



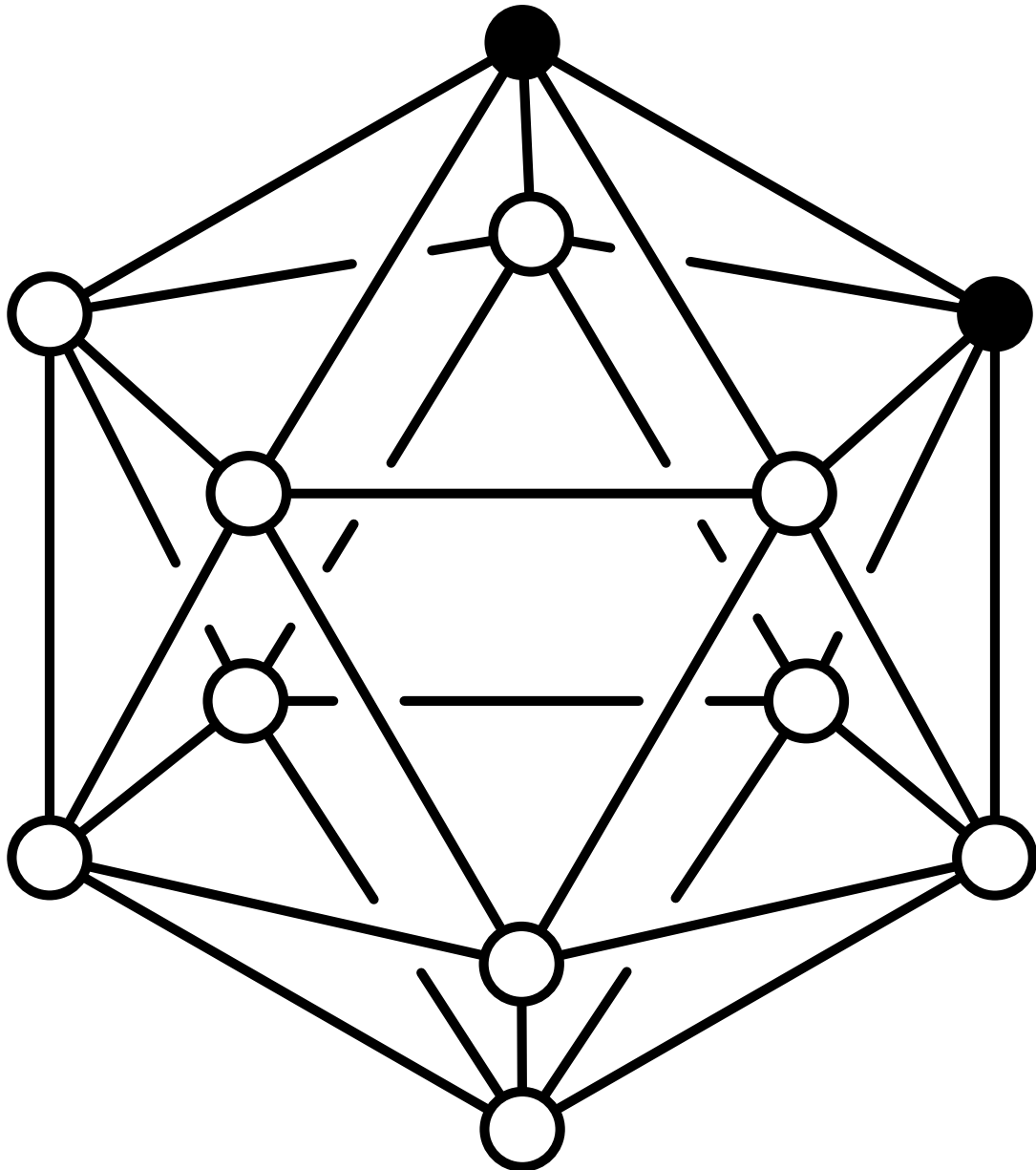
○ = BH

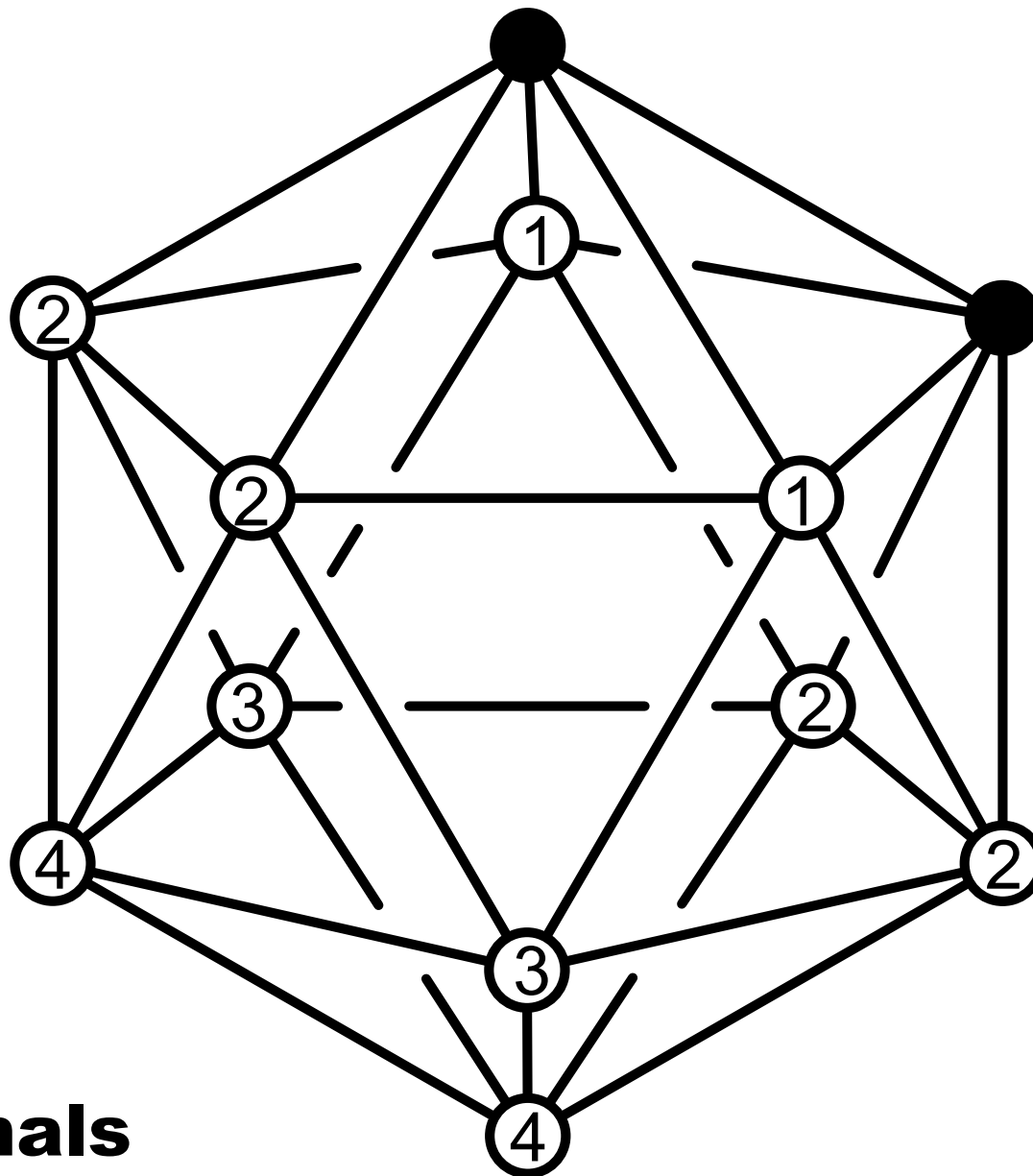
● = CH



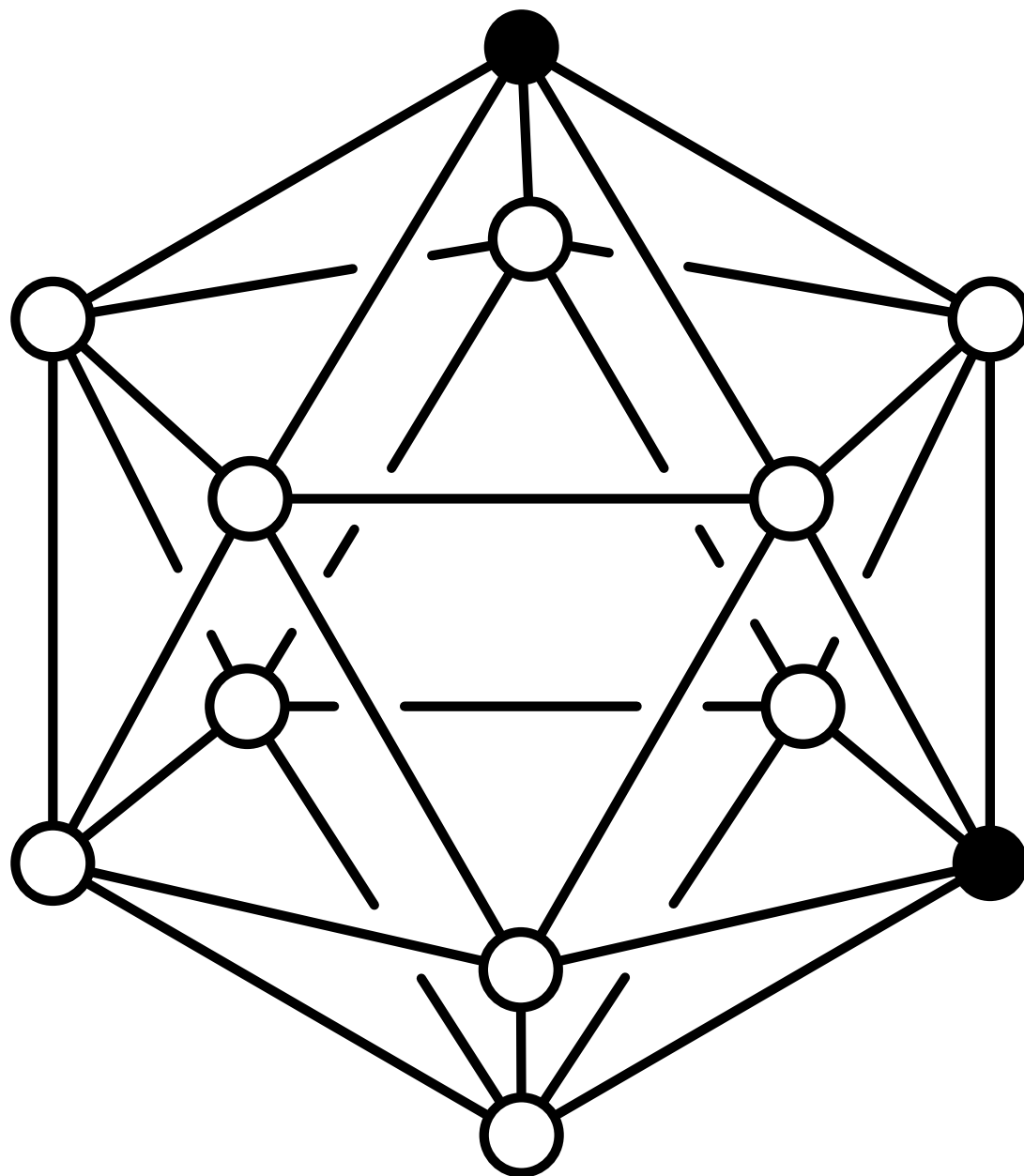
**$C_{5v}$**   
**3 signals**

# **Two Carbon**

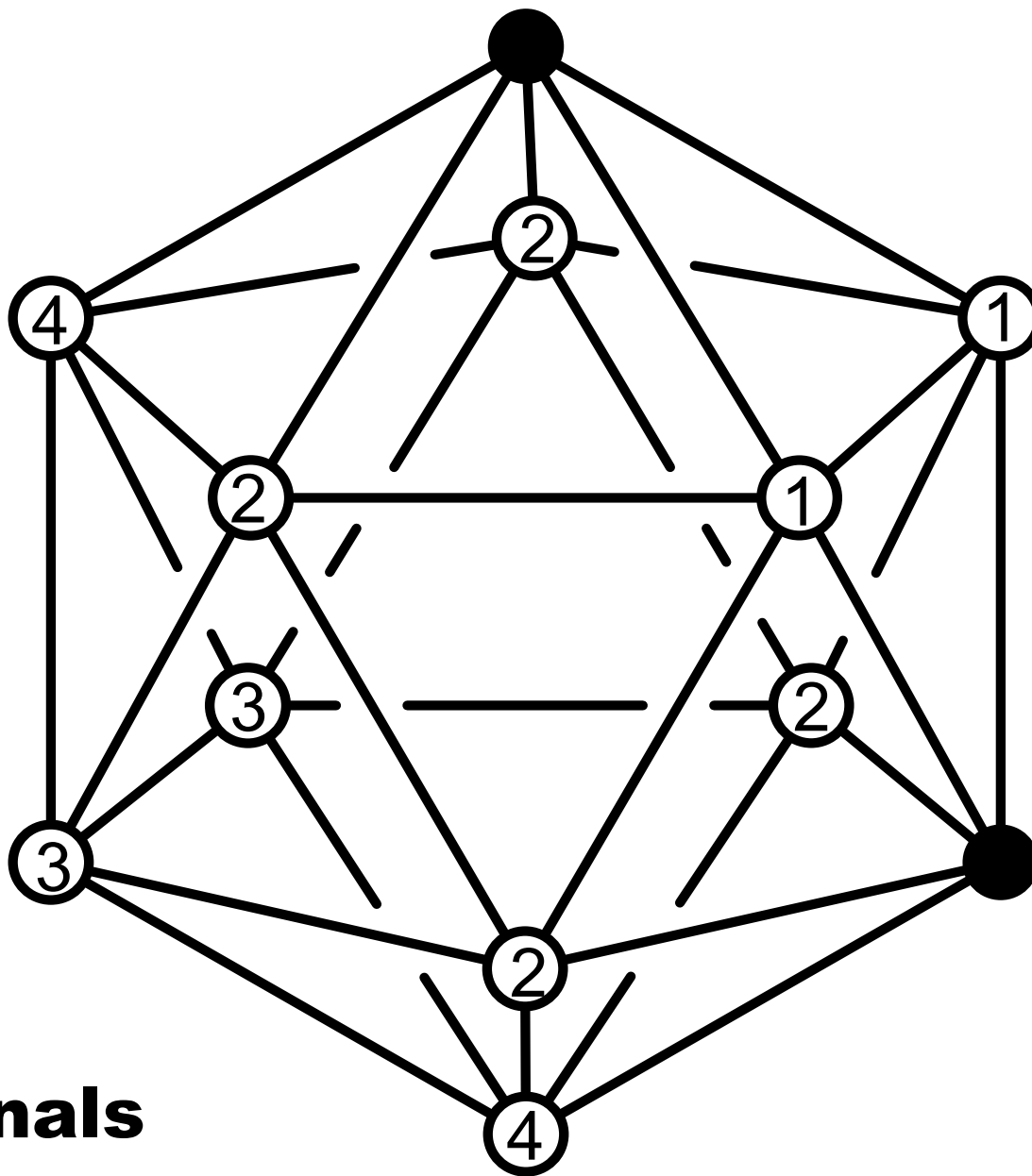




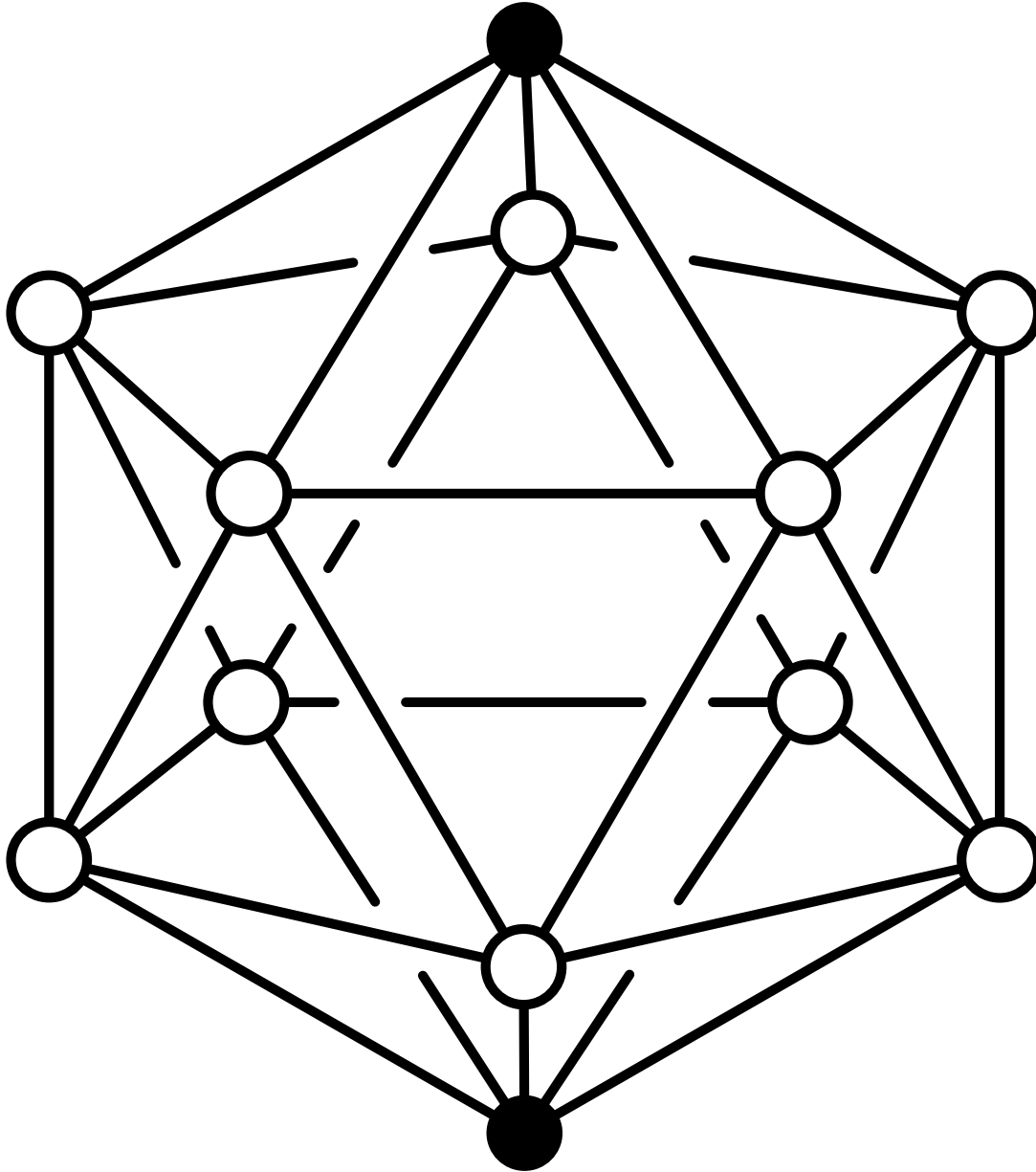
**$C_{2v}$**   
**4 signals**

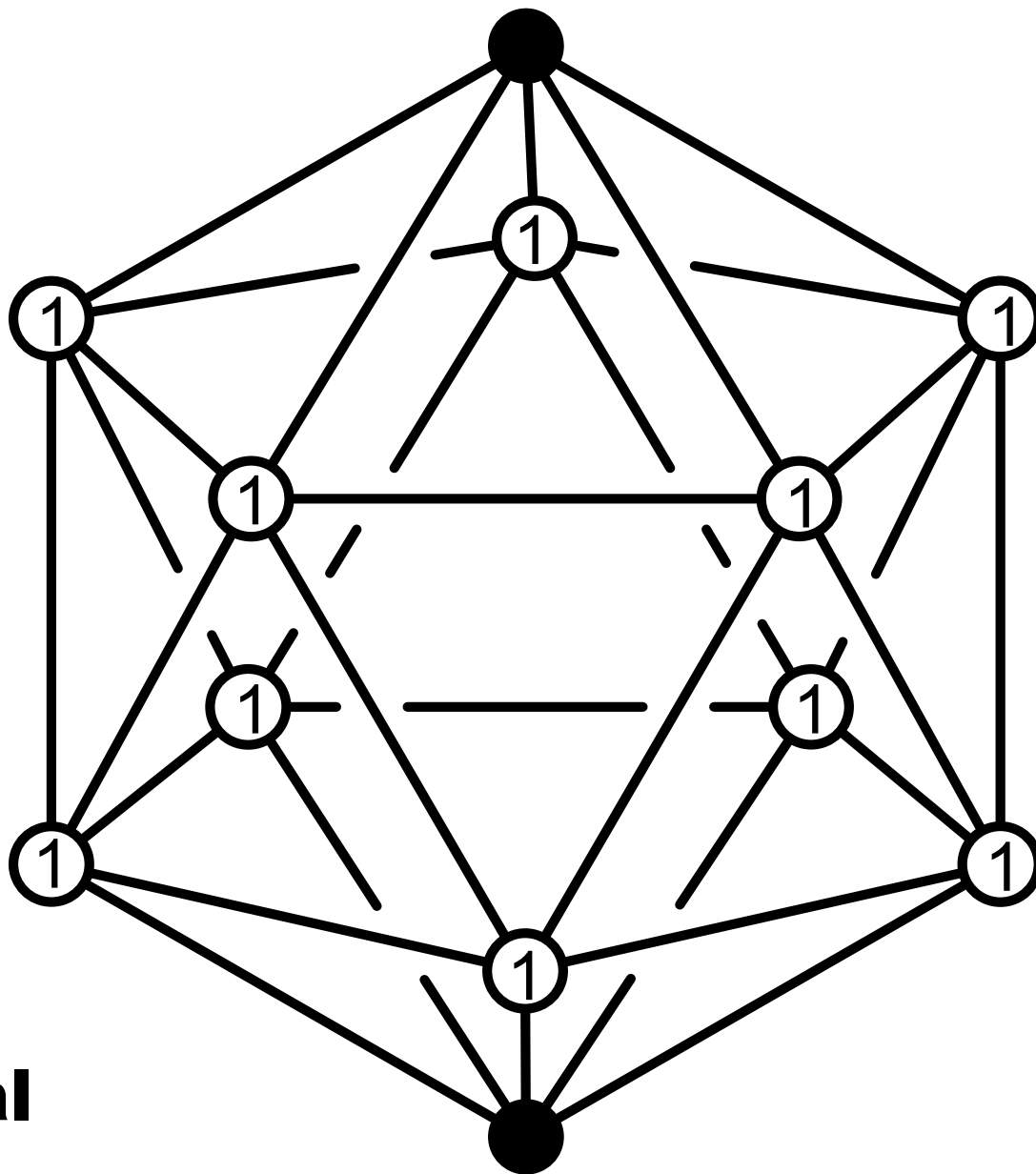






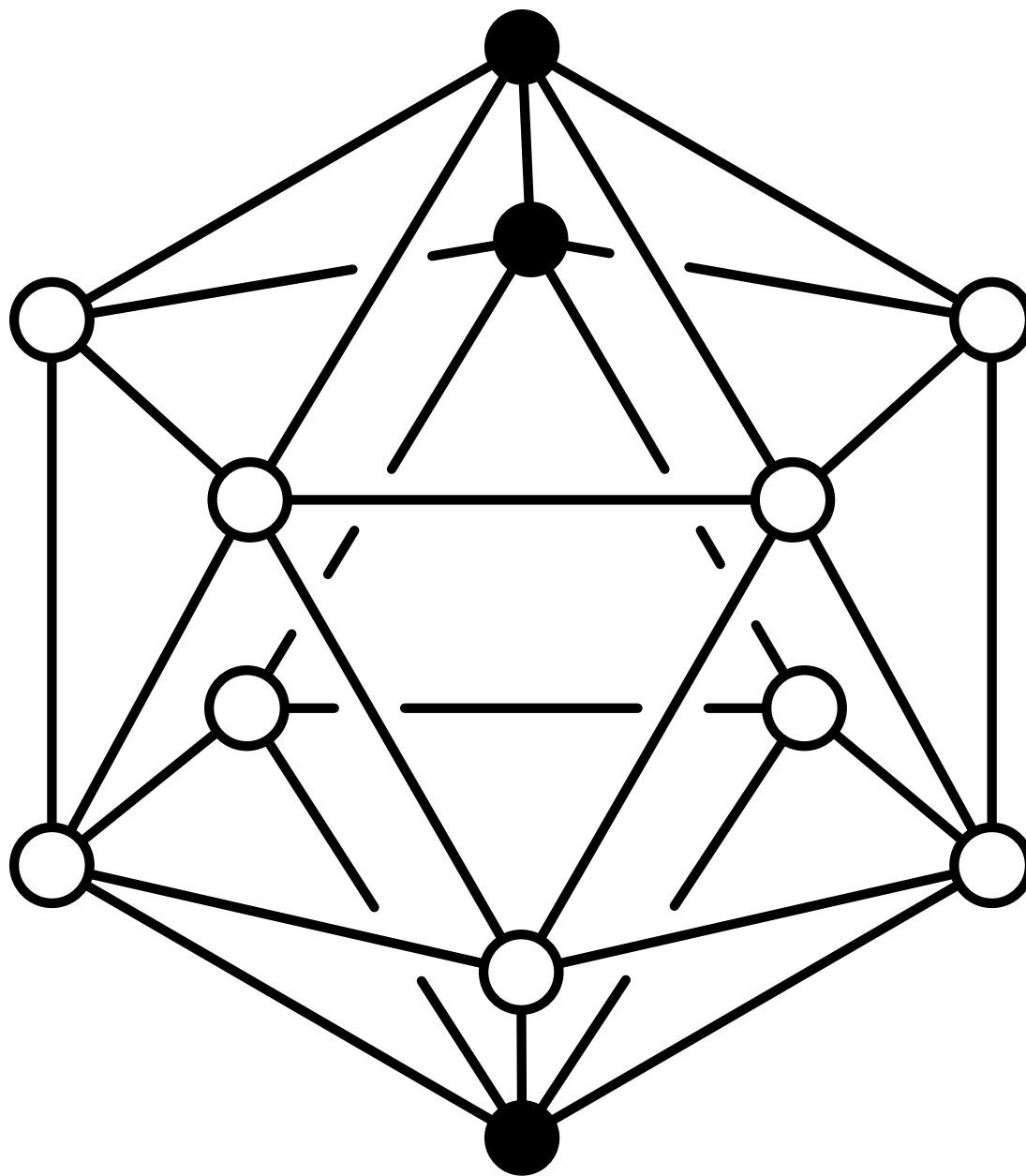
**$C_{2v}$**   
**4 signals**

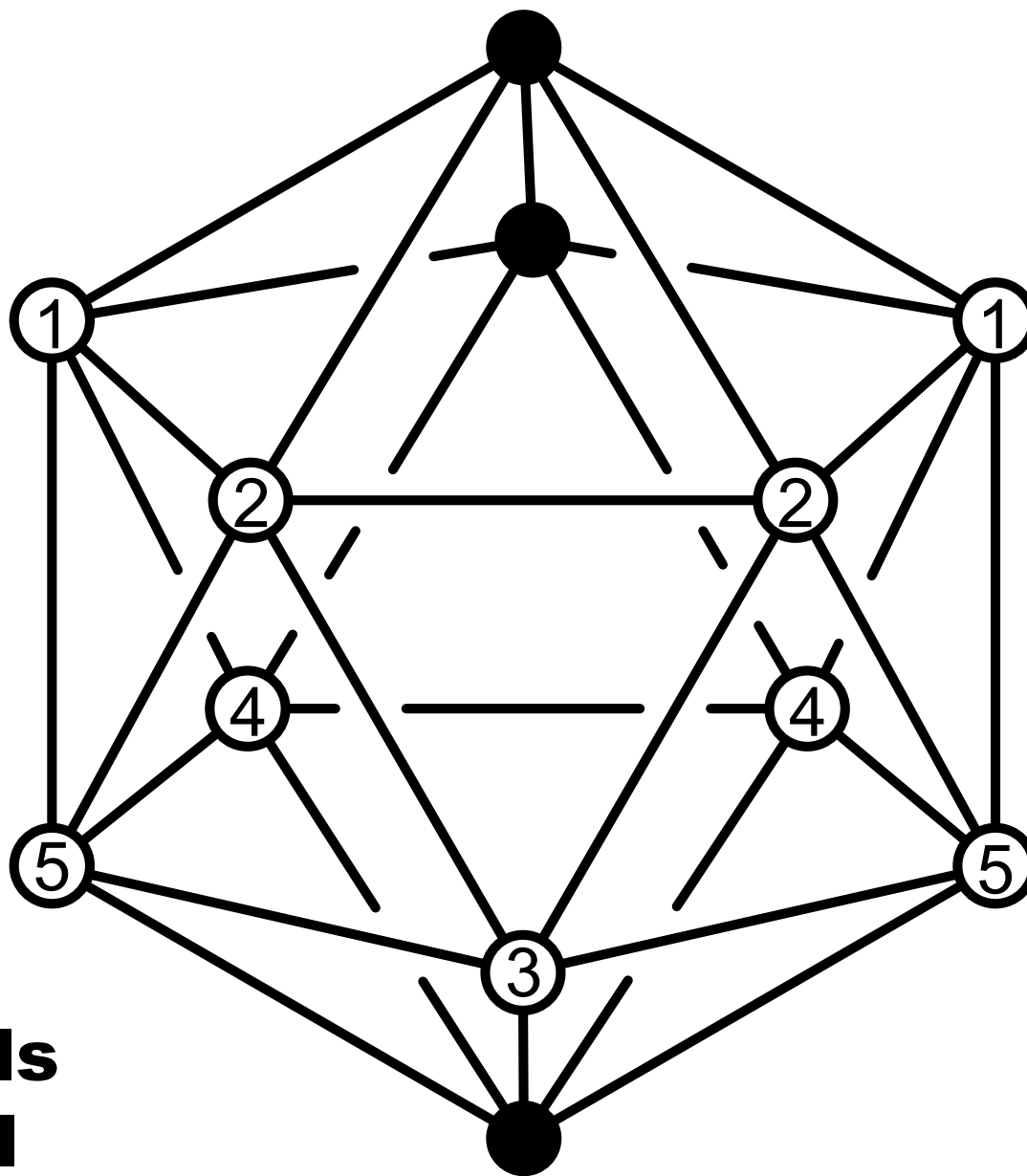




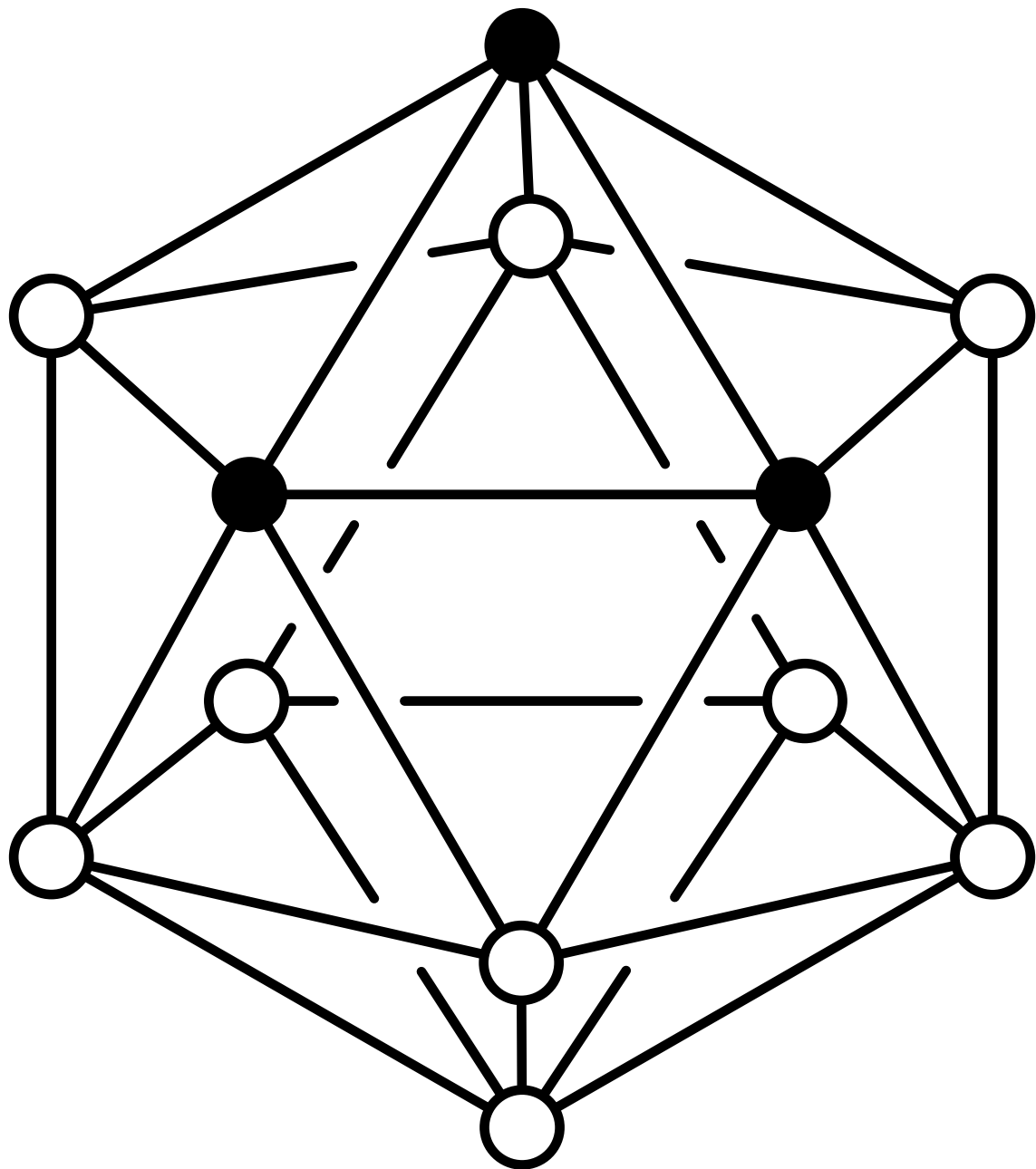
**$D_{5d}$**   
**1 signal**

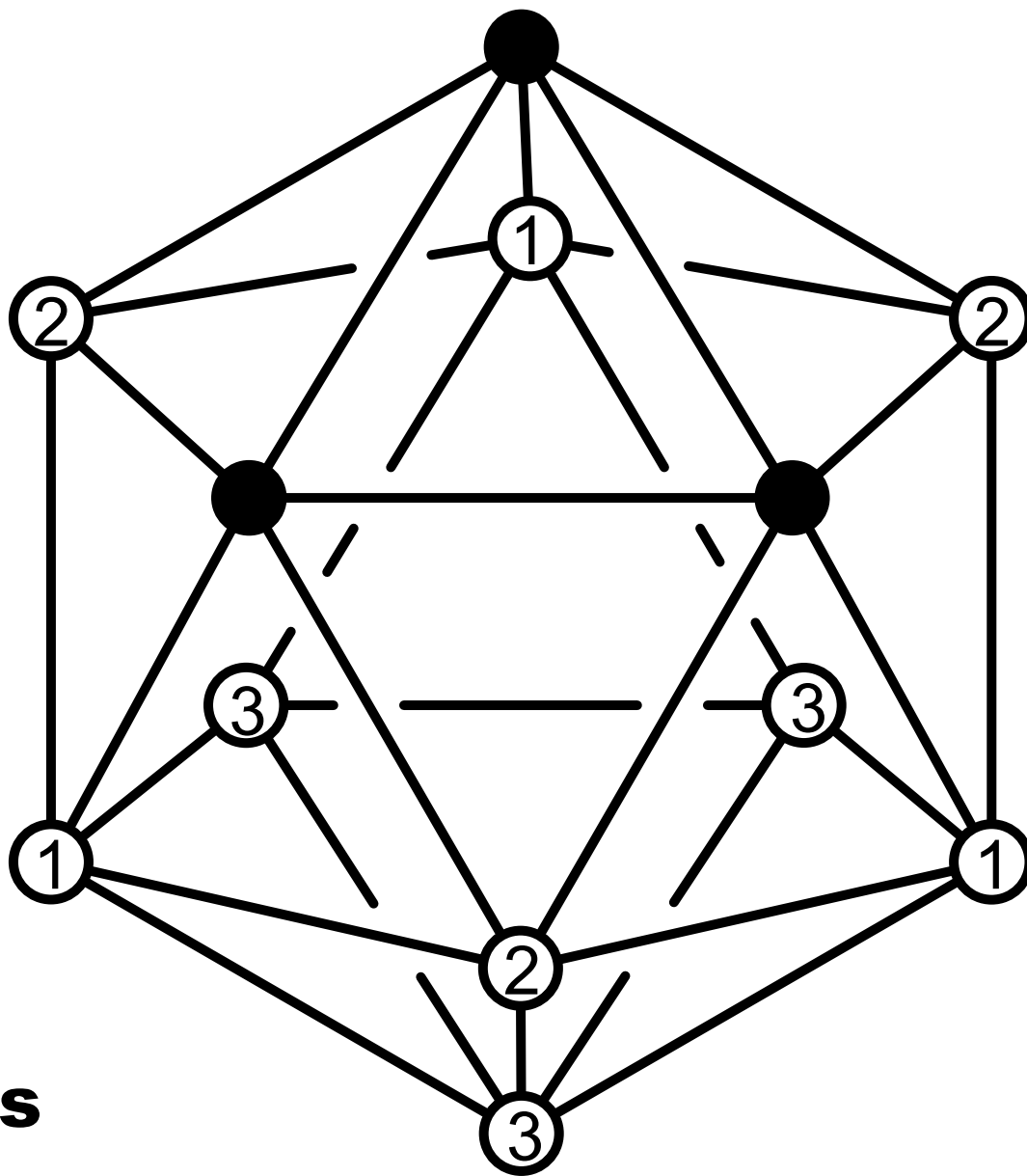
# **Three Carbon**





**$C_s$**   
**5 signals**  
**achiral**

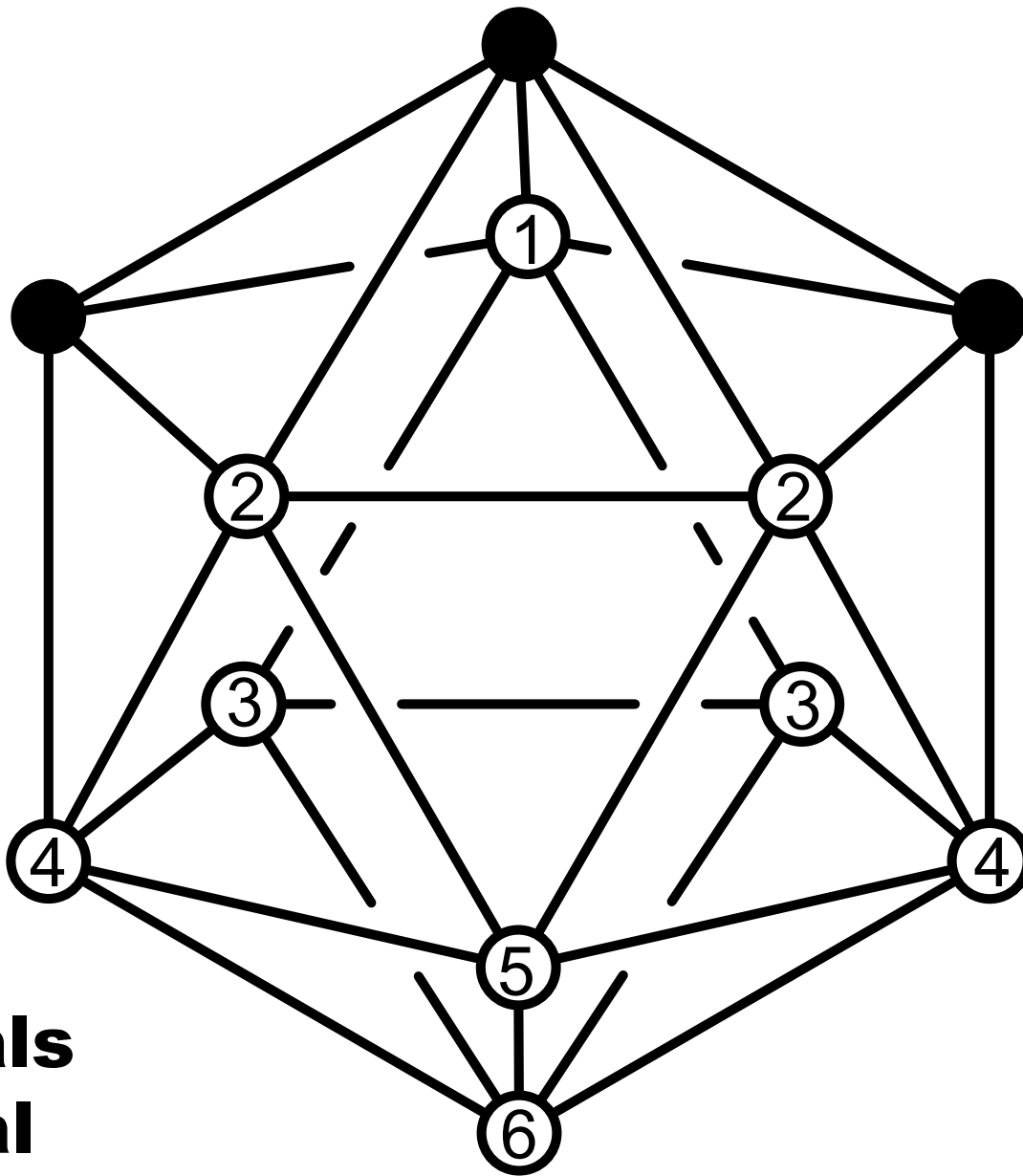




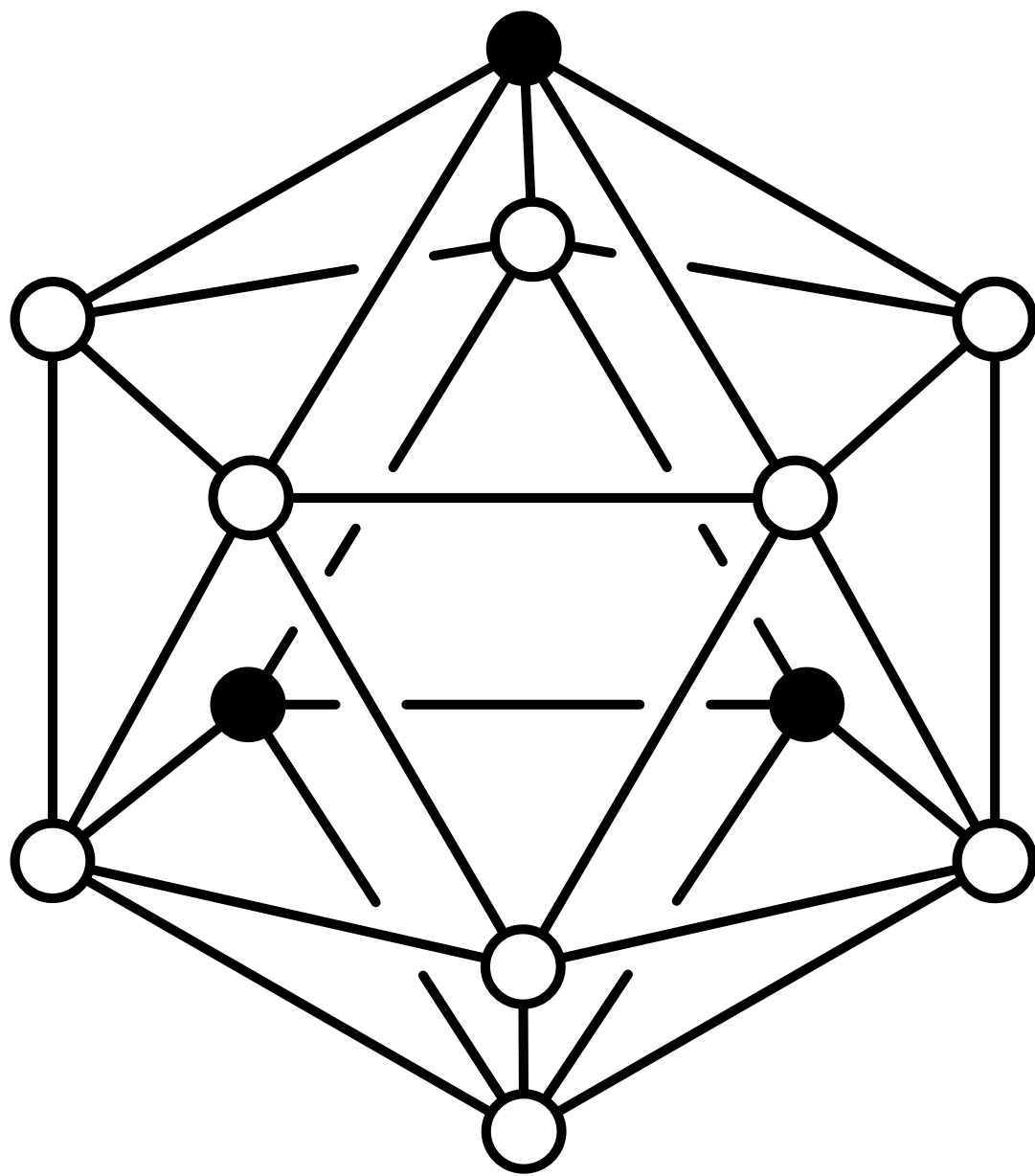
**$C_{3v}$**   
**3 signals**  
**achiral**

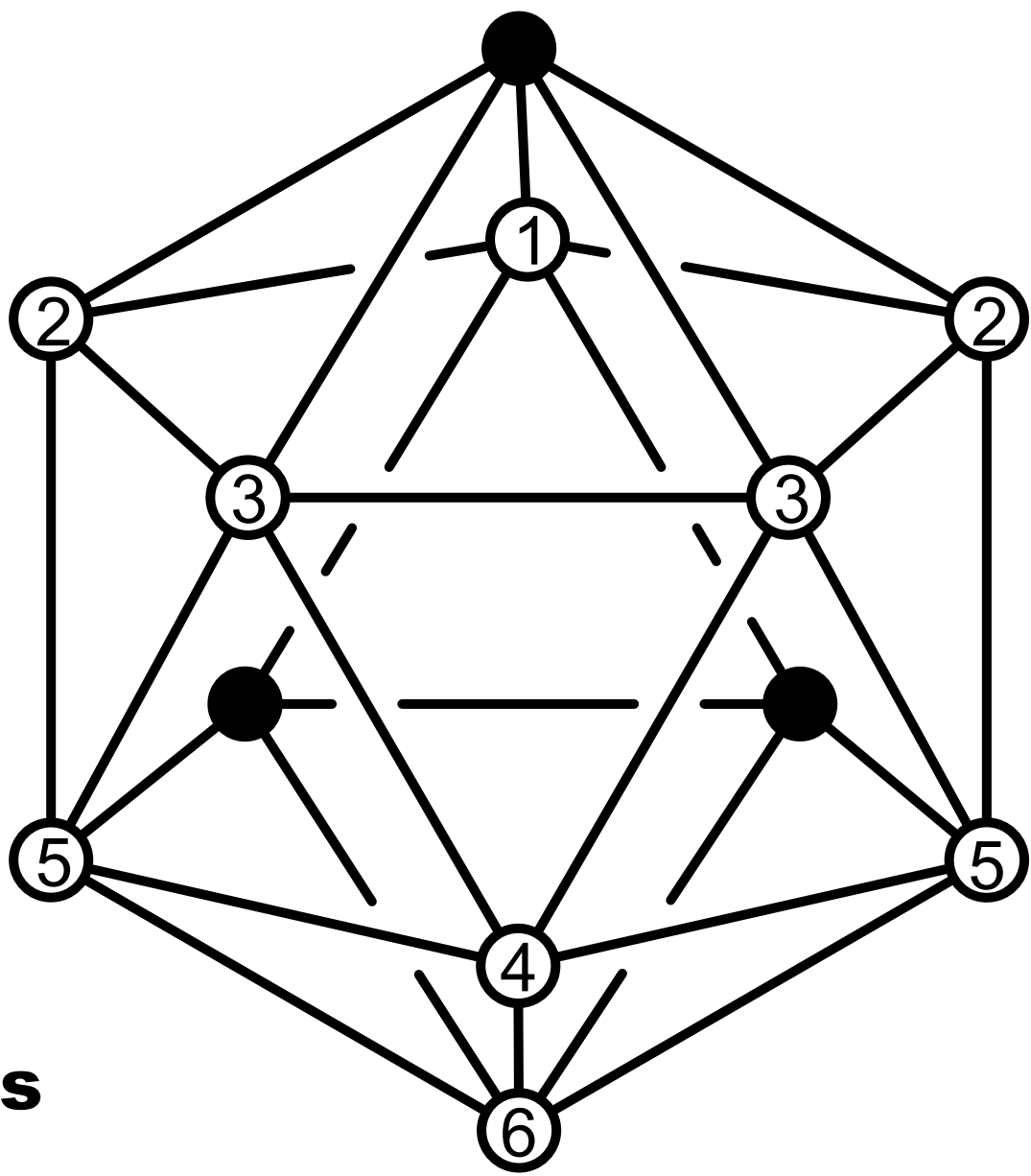




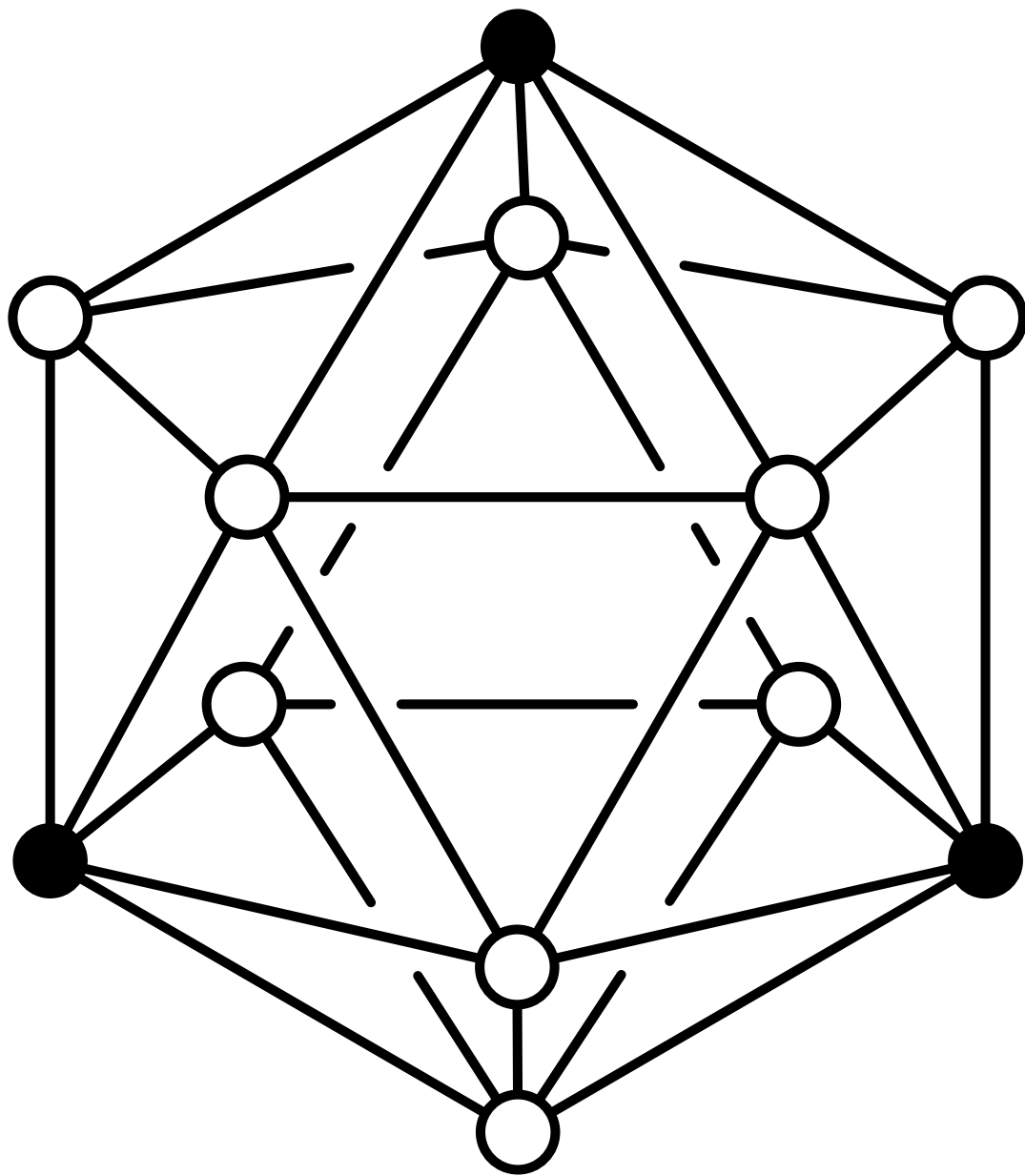


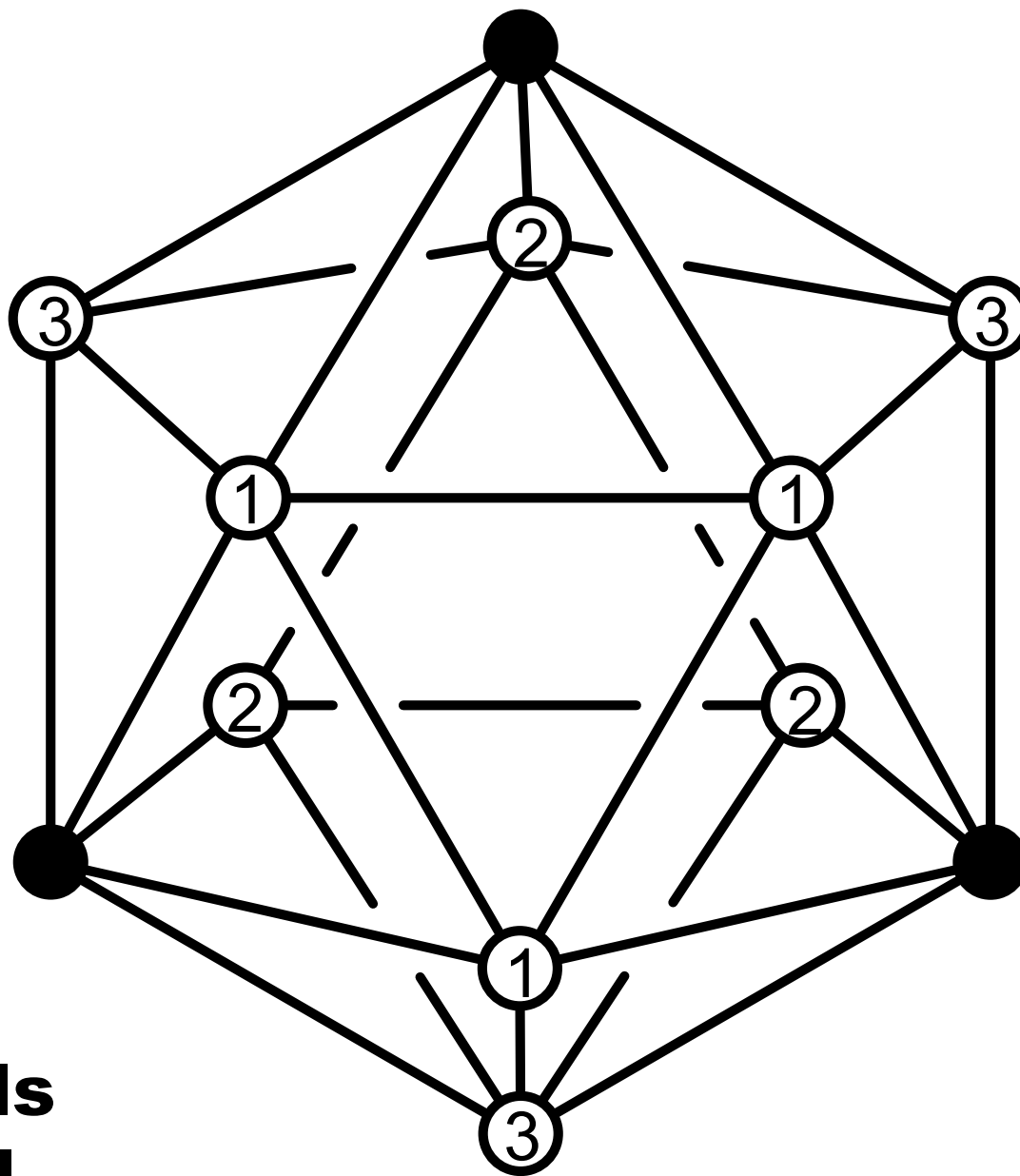
**$C_s$**   
**6 signals**  
**achiral**





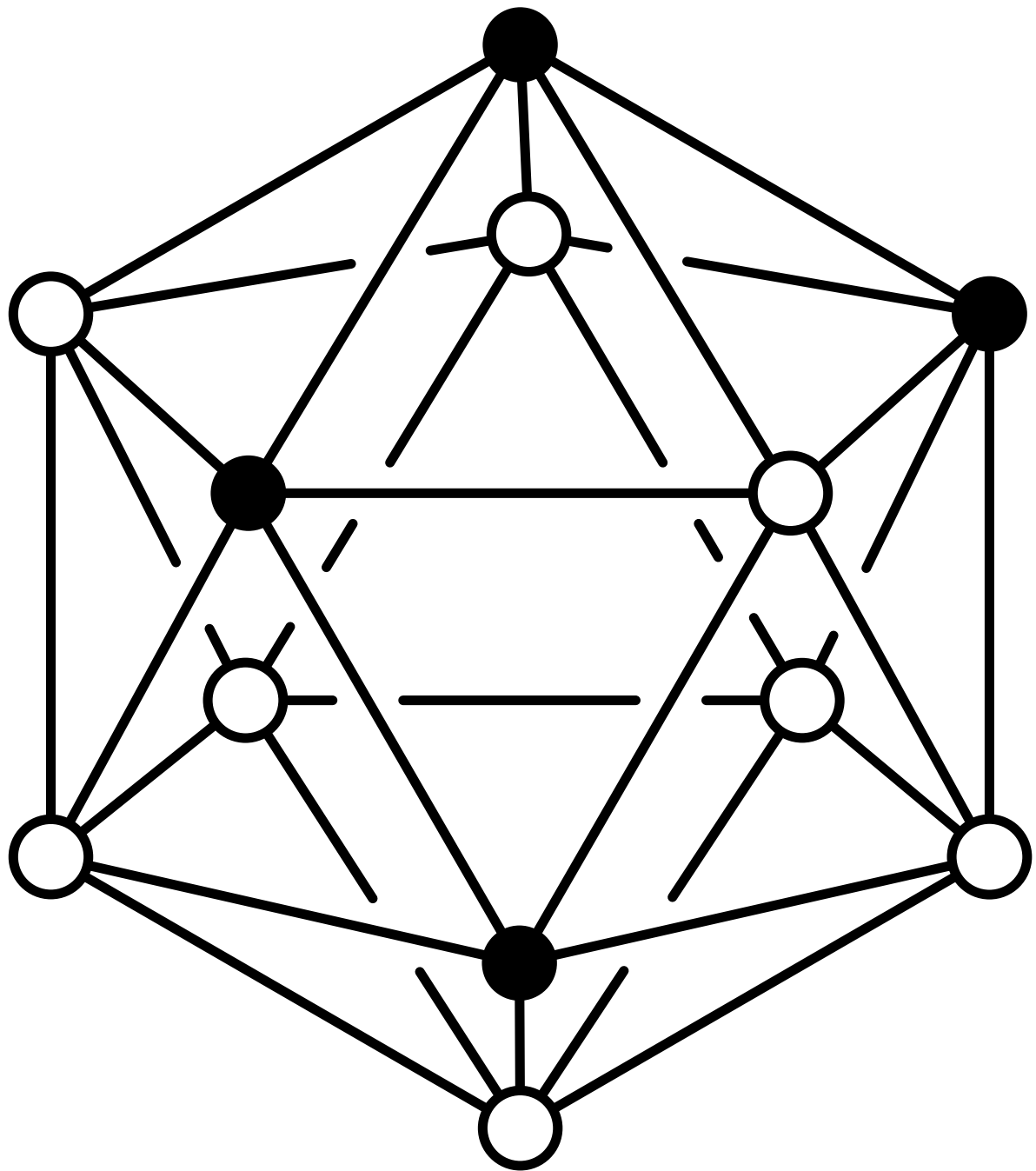
**C<sub>s</sub>**  
**6 signals**  
**achiral**



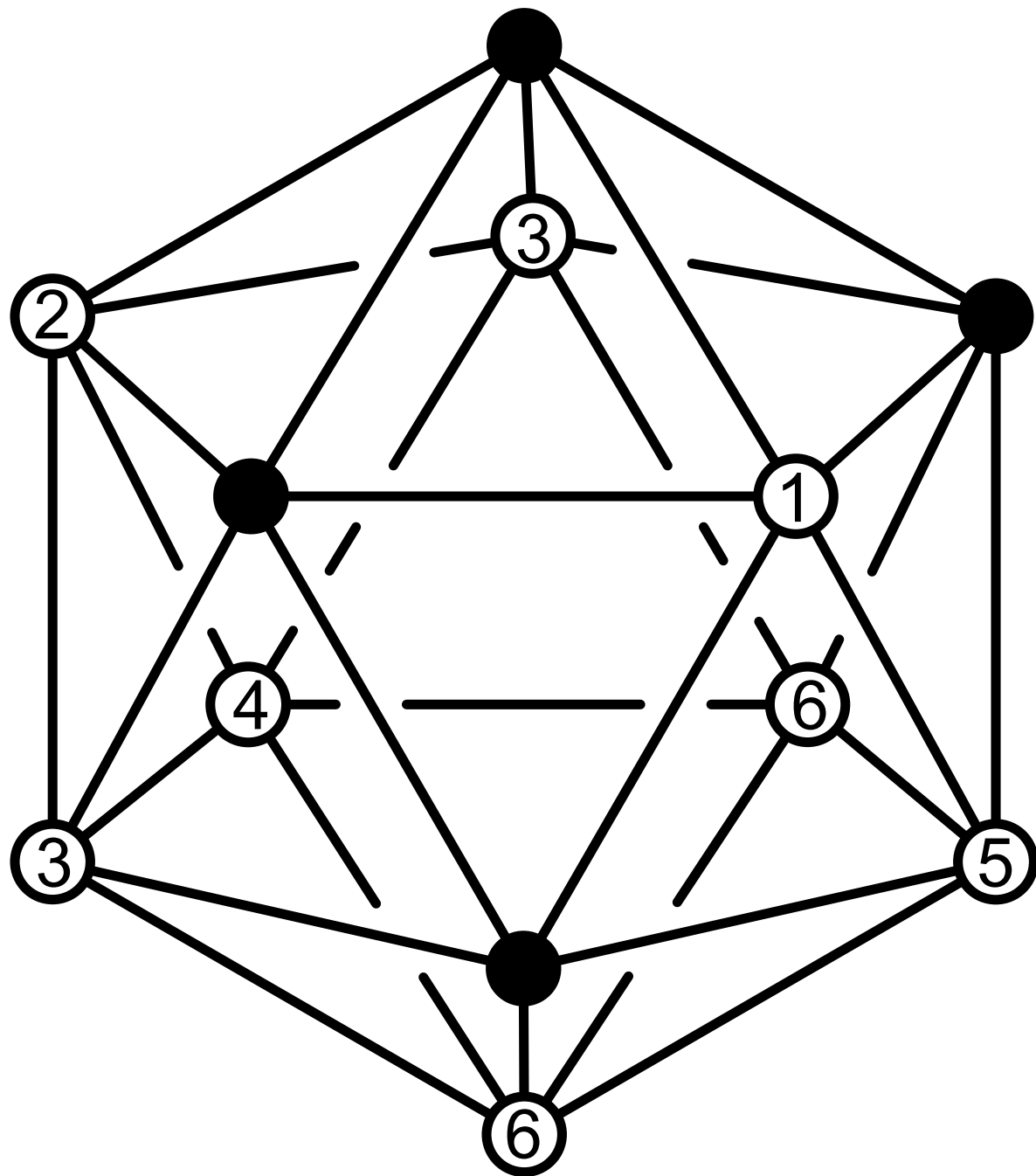


**$C_{3v}$**   
**3 signals**  
**achiral**

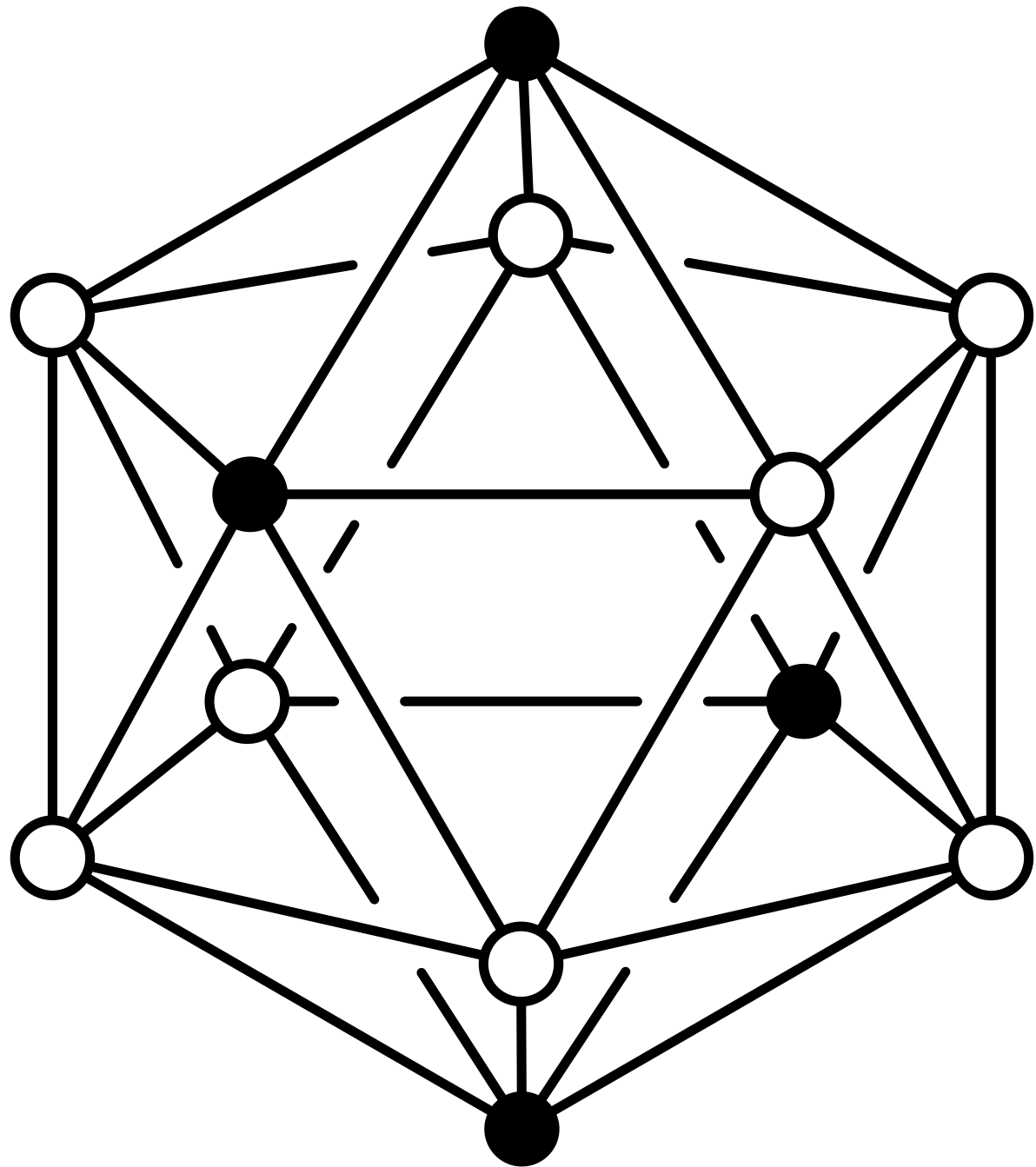
# **Four Carbon (three examples)**

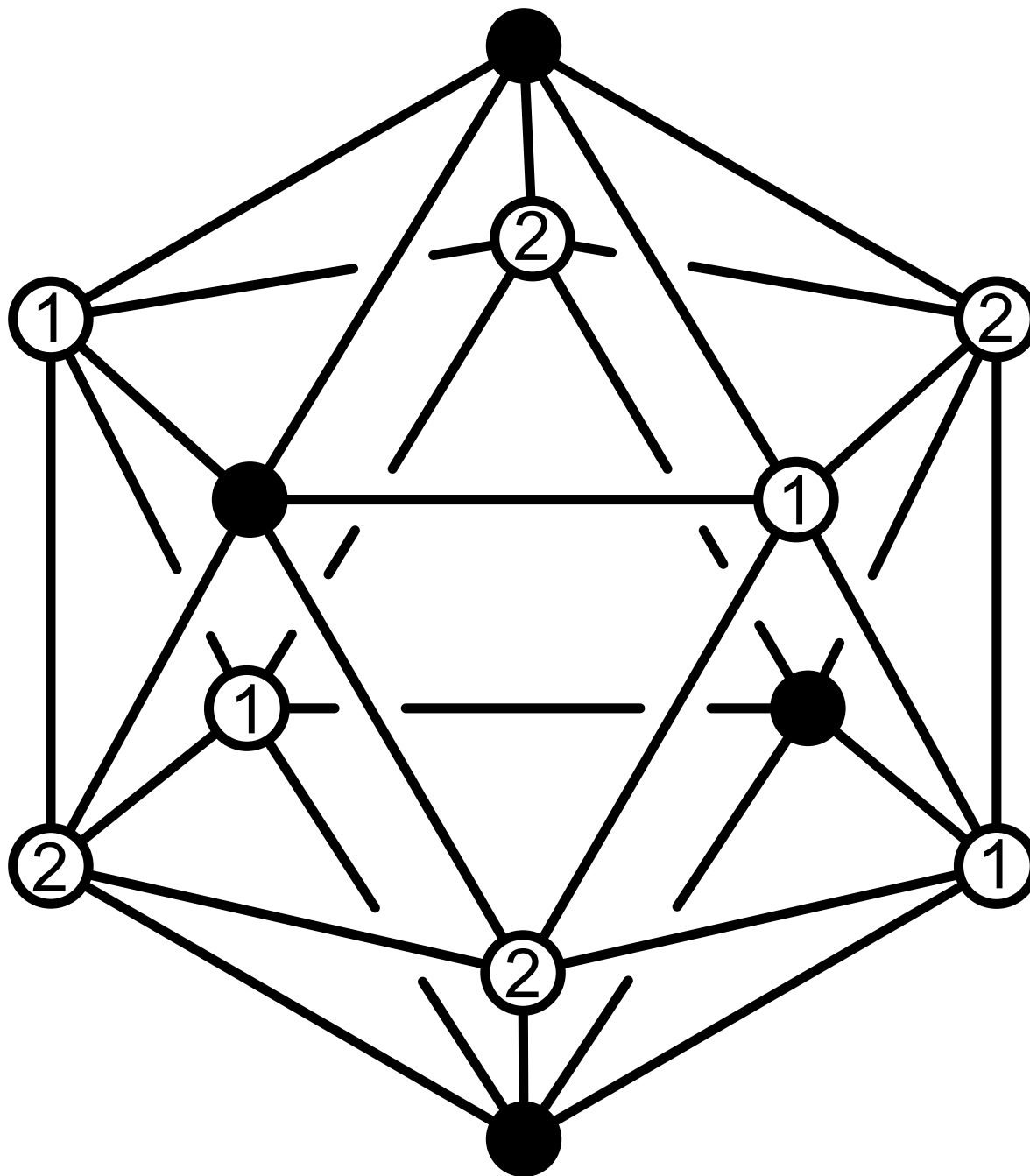




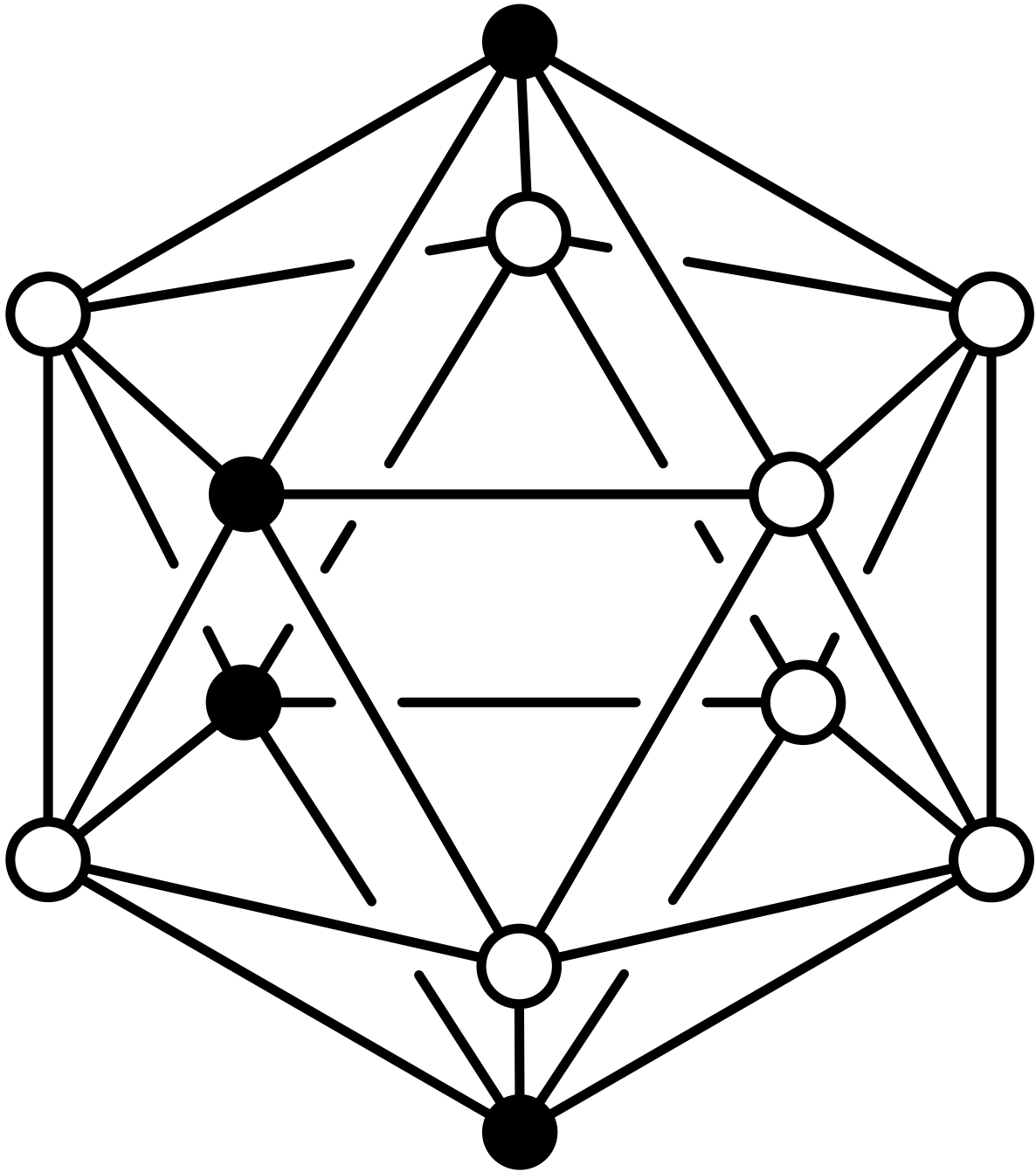


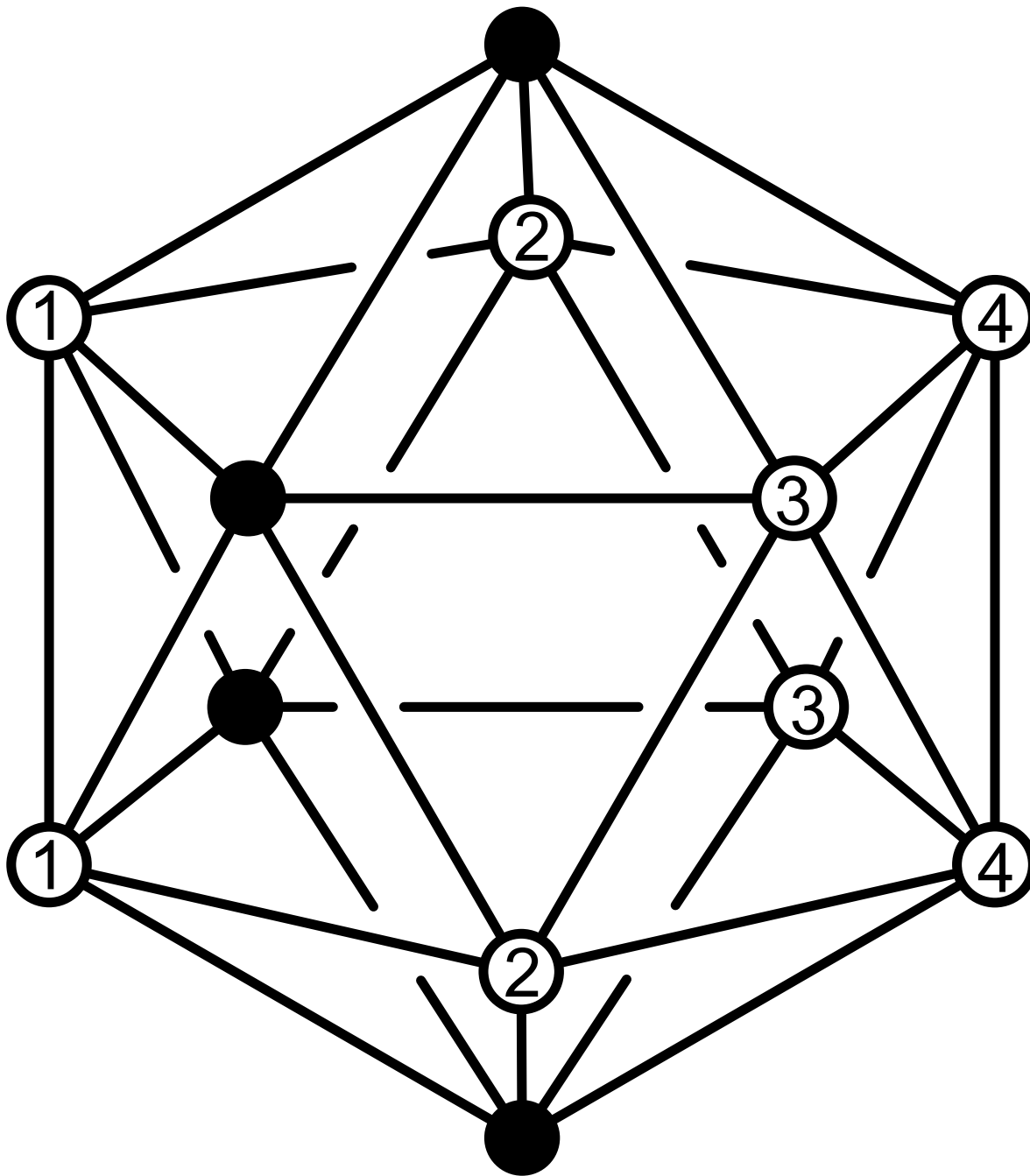
**C<sub>s</sub>**  
**6 signals**  
**achiral**





$D_{2h}$   
 2 signals  
 achiral





**C<sub>2</sub>**  
**4 signals**  
**chiral**