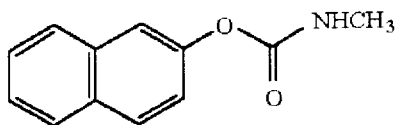
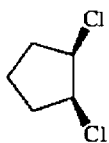


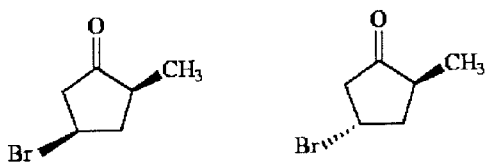
- 14) Draw the structure of the enantiomer of (2*S*, 3*R*)-2,3-dichloropentane. Take particular care to indicate three-dimensional stereochemical detail properly.
- 15) Draw the structure of (*S*)-1-bromo-1-chloropropane. Take particular care to indicate three-dimensional stereochemical detail properly.
- 16) How many asymmetric carbons are present in the compound below?



- 17) Can the molecule shown below be properly described as a meso compound?



- 18) A newly isolated natural product was shown to be optically active. If a solution of 2.0 g in 10 mL of ethanol in a 50 cm tube gives a rotation of $+2.57^\circ$, what is the specific rotation of this natural product?
- 19) Is it theoretically possible to separate the pair of compounds below by distillation? Explain briefly.



- 20) Draw the Fischer projection of (*S*)-2-hydroxybutanoic acid, $\text{CH}_3\text{CH}_2\text{CH}(\text{OH})\text{COOH}$.
- 21) Does the molecule shown below contain asymmetric carbon atoms? Is this molecule chiral?

