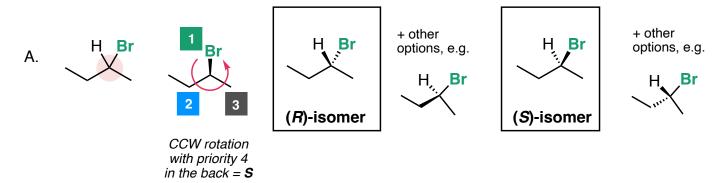
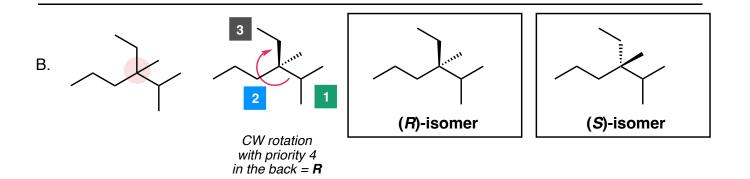
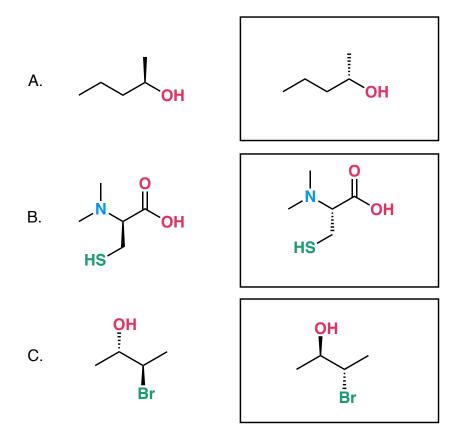
Drawing Chiral Molecules and Defining Isomeric Relationships

1. **Draw the (R) and (S) enantiomers** of each molecule below, each containing only one chiral center (highlighted for you)





2. Draw the enantiomer of each chiral molecule below.



3. **Select all** of the molecules below that are (R)-2-bromohexane.

4. Draw three different orientations of (S)-2-butanol

5. Use the flowchart to determine the relationship between the pairs of molecules below.

A.

constitutional isc	mers
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enantiomers

d	ias	ste	re	om	ne	rs

conformers

В.

OH

☐ constitutional isomers

enantiomers

☐ diastereomers

conformers

C.

OH

constitutional isomers

enantiomers

☐ diastereomers

onformers conformers

D.

OH OH

constitutional isomers

enantiomers

diastereomers

conformers

E.

ОН

 $\hfill \square$ constitutional isomers

enantiomers

diastereomers

☐ conformers

F.

ОН

☐ constitutional isomers

enantiomers

☐ diastereomers

conformers