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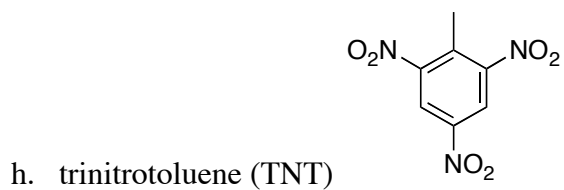
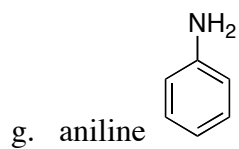
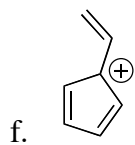
April 18, 2011

PEERS Workshop
Chemistry 30A
Worksheet 5

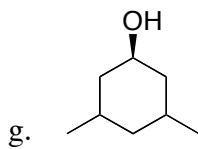
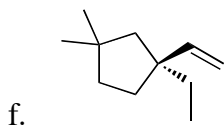
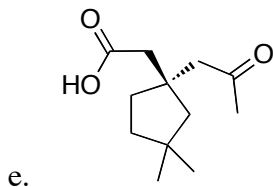
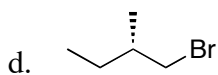
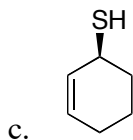
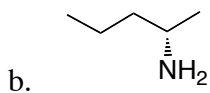
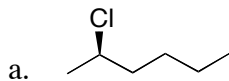
1. Draw the both chair conformations for *cis*-1-isopropyl-2-methylcyclohexane. Circle the most stable conformation and explain why.
 - a. If the energy difference (ΔG) between these two conformations at room temp is 2.8 kcal/mol, what is the ratio of these two conformers?

2. Draw five (5) constitutional isomers of C_6H_{12} .
 - a. Choose two (2) of the constitutional isomers you drew, and provide two (2) stereoisomers for these molecules.

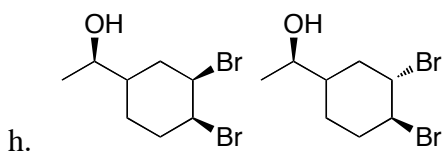
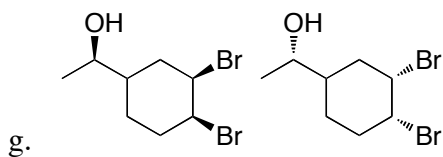
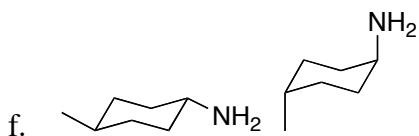
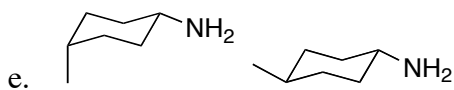
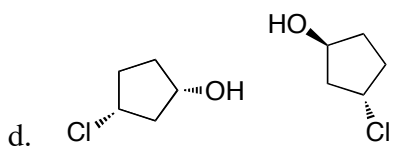
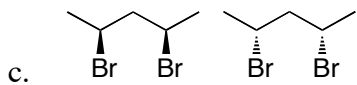
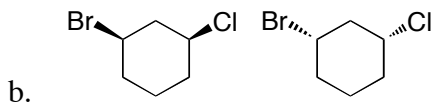
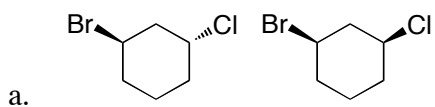
3. Draw resonance structures for the following molecules or ions:



4. In the molecules below, label *R* or *S* or *meso*



5. Identify as identical, enantiomers, or diastereomers:



6. Provide IUPAC names for the following molecules:

