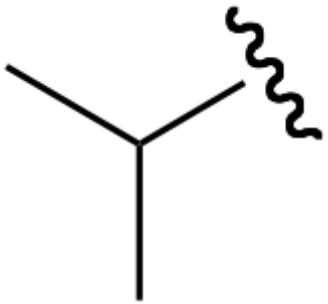
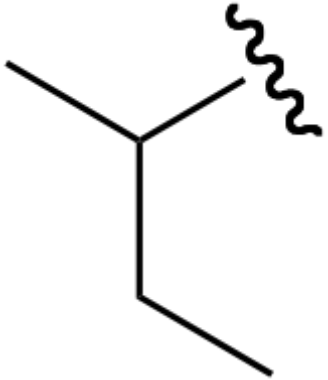
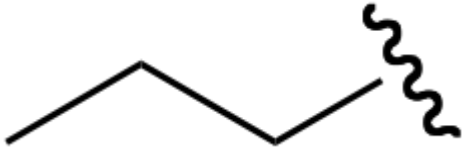
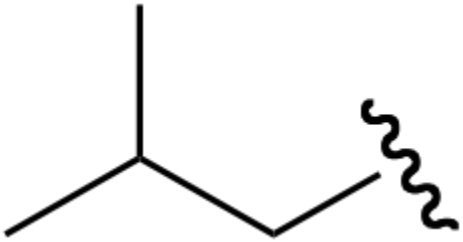
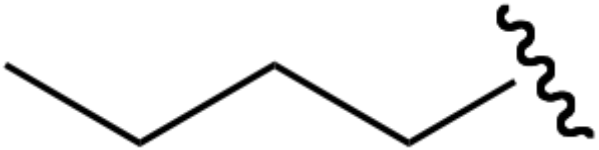
Name each substituent.



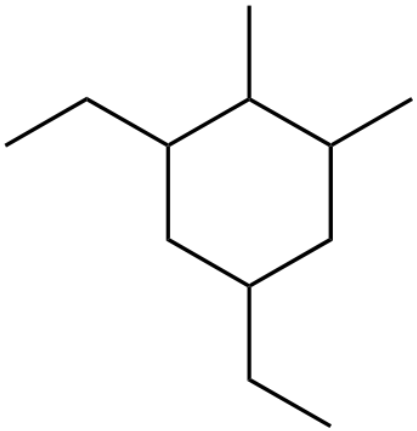


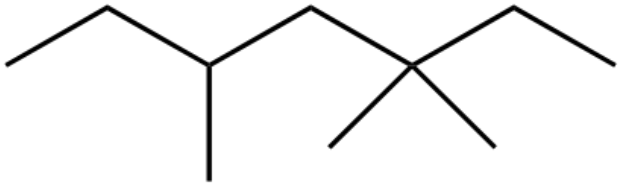


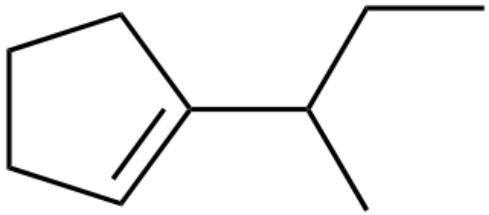




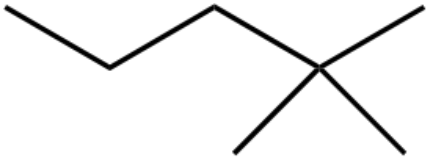
Identify each type of carbon.

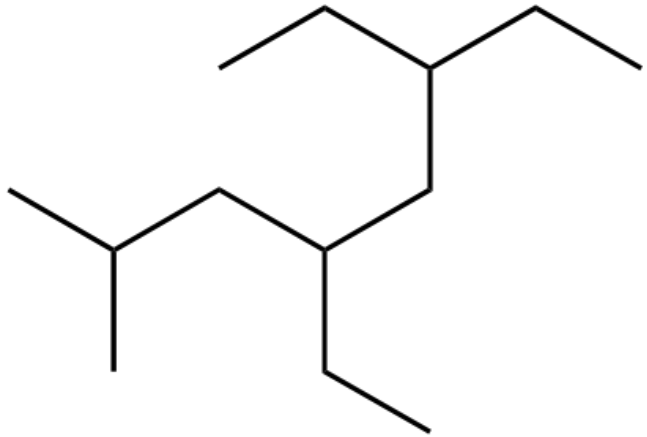


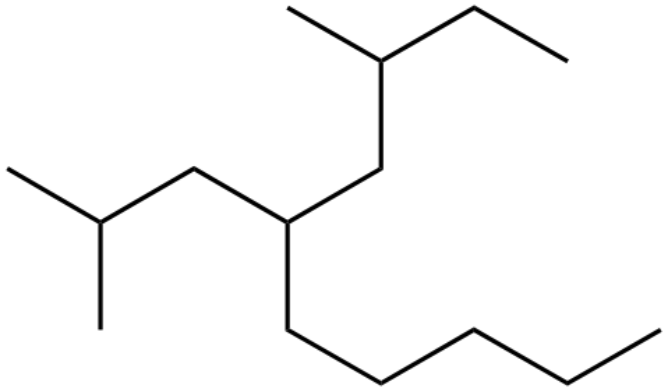




Name the alkanes.







What's wrong with each name? How would you fix it?

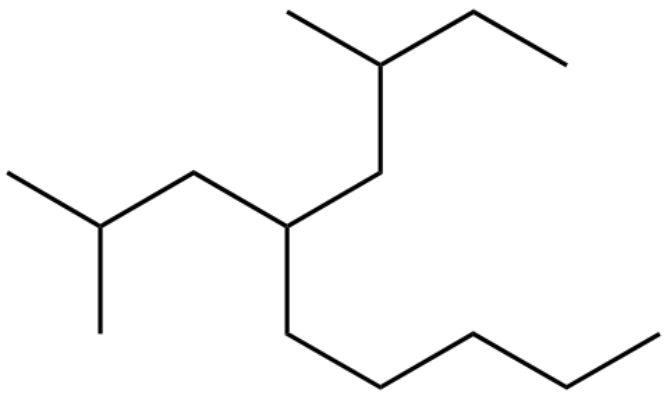
4,4-dimethylpentane

1,1,1-trimethylheptane

2,2-methylpentane

2-dimethylpentane

What's wrong with these names?



6-ethyl-2-methyl-4-pentyloctane

3-methyl-5-isobutyldecane

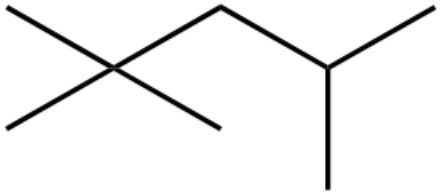
Draw the structure for each name.

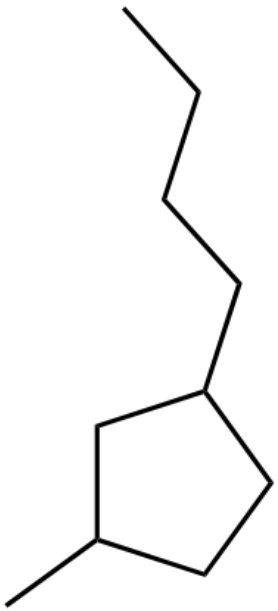
2,2,3-trimethylpentane

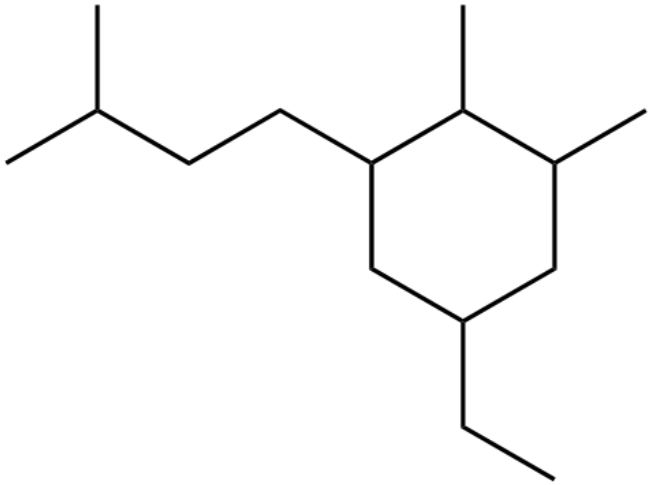
3-ethyl-2,5-dimethylhexane

3-ethyl-4-isobutyl-2-methyldecane

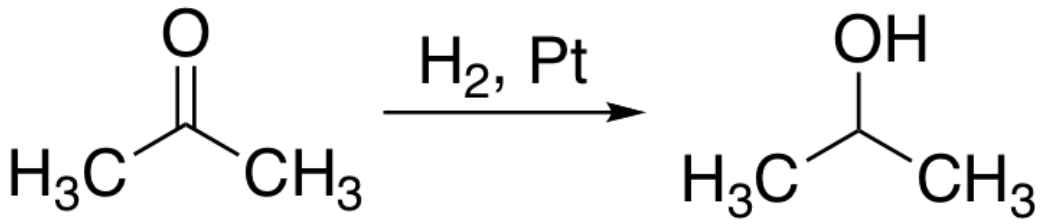
Name the molecules.

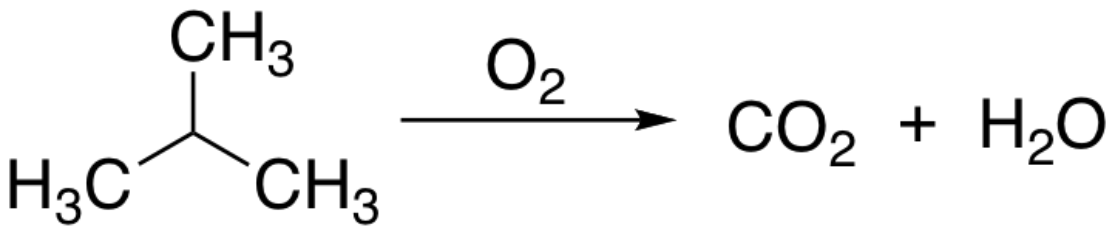


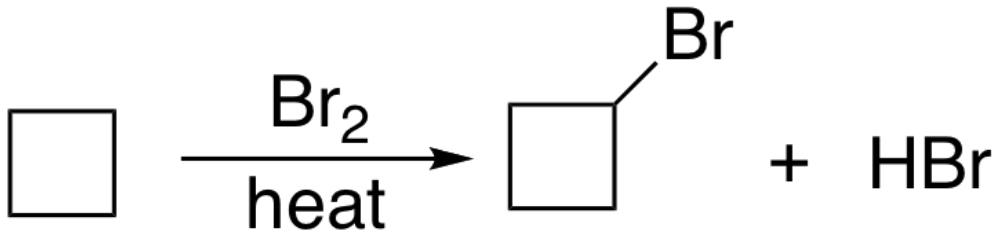




Determine whether each reaction is oxidation/reduction.

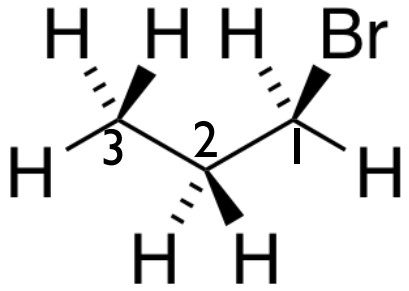






1

Build a model of 1-bromopropane. Arrange your model to look like this drawing.



2

Newman C1-C2

(1 in front) (2 in front)

3

Choose one of your Newmans & rotate to find the highest & lowest energy conformers.

lowest highest

4

Redraw the two structures on the left as 3-D representations.

How do you know which bond to look down?

How do you know which carbon to make front and which to make back?

How do I know which direction to rotate?

How do I go back and forth between skeletal/3-D drawing & Newmans?

Using the 1-bromopropane example, draw illustrations of torsional strain and steric strain.

Draw an example of angle strain.