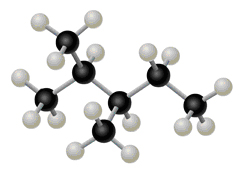
[Organic Chemistry](http://session.masteringchemistry.com/myct/assignment?assignmentID=2386285) Part III

1. Consider the alkane shown in the model.



1. What is the molecular formula for the alkane shown in the model? Express your answer as a chemical formula.
2. Name the alkane shown in the model. Express your answer as the IUPAC name.
3. Draw the structure of the cycloalkane 1,4-dimethylcyclohexane.
4. Name each alkane.

CH 3 − C | C H 3 H−CH 3 \arraycolsep=0pt \begin{array}{rcl}&amp;{\rm C}&amp;{\rm H_3}\\&amp;{\rm |}&amp;\\{\rm CH_3-{}}&amp;{\rm C}&amp;{\rm H-CH_3}\end{array}Spell out the full name of the compound.

CH 3 − C | C H 3 H−CH 2 − C | C H 3 H−CH 2 −CH 3 Spell out the full name of the compound.

CH 3 − C | C | C H 3 − H 3 C | C | C H 2 −CH 3 −CH 2 −CH 3 H 3 Spell out the full name of the compound.

CH 3 − C | C | C H 3 H 2 H−CH 2 − C | C H− H 3 C | C | C H 3 H 2 H−CH 2 −CH 2 −CH 3 Spell out the full name of the compound.