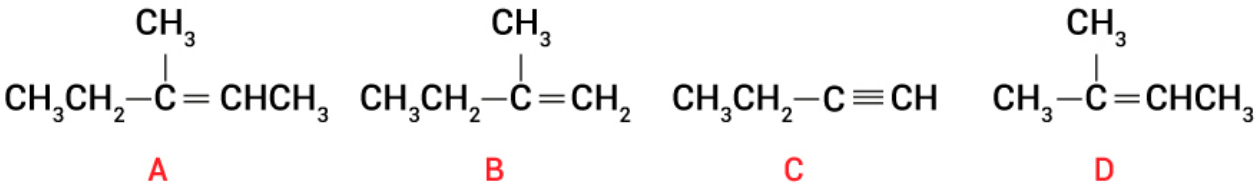
View hints View feedback Play All

QUESTION 1

Select the correct answer.

Which of the organic compounds below have geometric isomers?



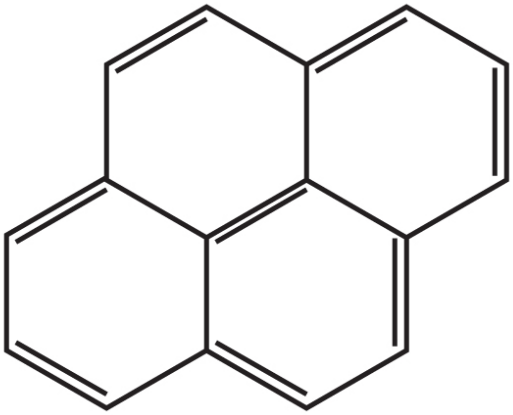
- [x] A
- [ ] C
- [ ] B
- [ ] D

QUESTION 2

Fill in the blank with the correct numbers.

Study the structure of the pyrene alongside.

- Pyrene is made up of 4 ✓ fused benzene rings.
- Pyrene consists of 16 ✓ carbon atoms and 10 ✓ hydrogen atoms.



QUESTION 3

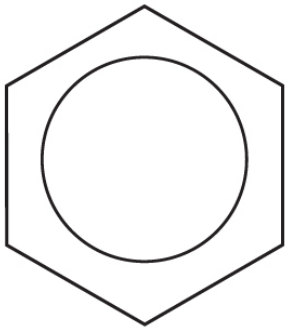
Select the correct answer.

Which of the following statements are TRUE about benzene?

I: Benzene contains 12 hydrogen atoms.

II: Benzene is an unsaturated compound.

III: All the bonds in benzene are of equal length

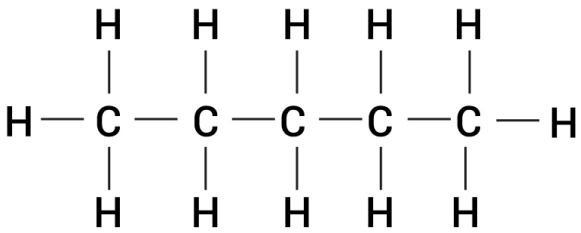


- ○ I and II
- ✓ II and III
- ○ only I
- ○ I, II, and III

QUESTION 4

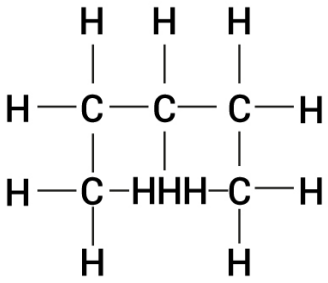
Select the correct answer.

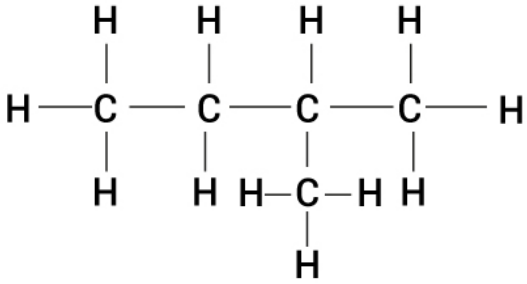
Study the structural formula of pentane alongside.

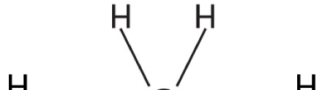


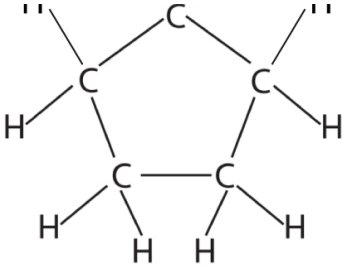
pentane

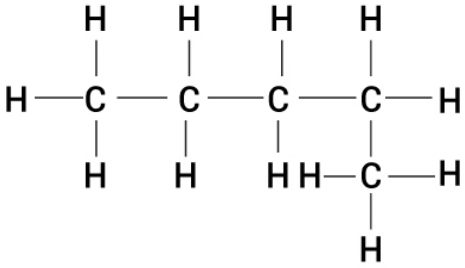
Which of the compounds below is an isomer of pentane?







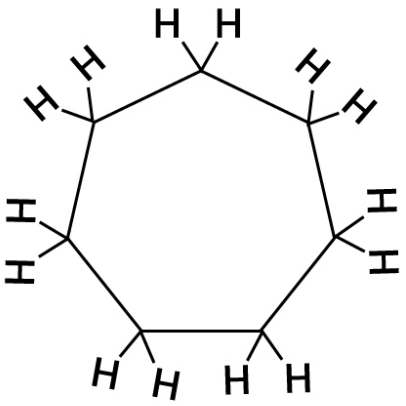




QUESTION 5

Select the correct choice from the drop-down menu.

Study the organic compound alongside.



The name of this organic compound is

cycloheptane ✓ .

QUESTION 6

Fill in the blank with the correct number.

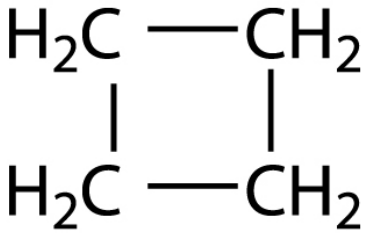
The minimum number of carbon atoms needed to form a cyclic hydrocarbon is

3 ✓.

QUESTION 7

Select the correct choices from the drop-down menus.

Study the hydrocarbon alongside.



- The chemical formula of the hydrocarbon is

  $C_4H_{2(4)}$ ✓ ⌄.

- The name of the hydrocarbon is

  cyclobutane ✓ ⌄.

QUESTION 8

Drag and drop the correct option to complete the sentence.

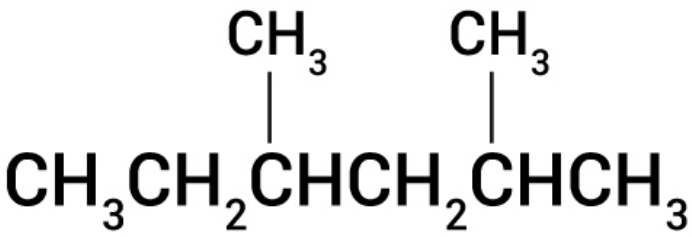
The name of the hydrocarbon alongside is 2,4-dimethyl hexane.

The compound 2,4-dimethyl hexane is an isomer of octane ✓.

hexane

pentane

heptane

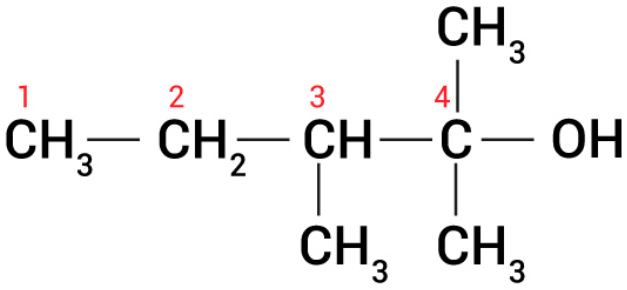


QUESTION 9

Select the correct answer.

A chiral carbon is a carbon atom with four different atoms or groups of atoms attached.
A chiral carbon has optical isomers.

Identify the chiral carbon in the compound alongside.



- 2
- 3 ✓
- 1
- 4

QUESTION 10

Select the correct choices from the drop-down menus.

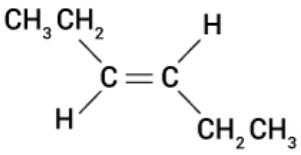
Structural ✓ isomers are compounds with the same chemical formula but different structural formulas.

The boiling points decrease with more branches in the carbon chains, meaning less ✓ energy is needed to separate branched hydrocarbons.

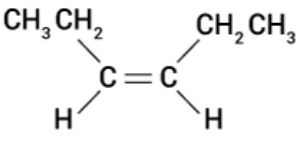
QUESTION 11

Select the correct answer.

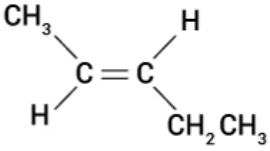
Identify the hydrocarbon named *cis*-3-hexene.



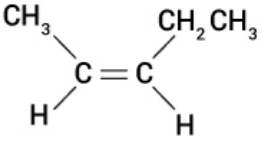
(A)



(B)



(C)



(D)

- [x] B ✓
- [ ] A
- [ ] C

D

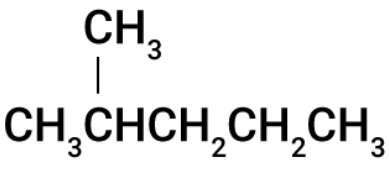
QUESTION 12

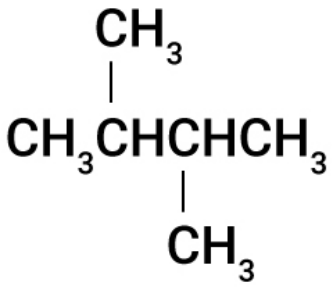
Fill in the blank with the correct numbers.

Butyne has 2 ✓ isomers and butene has 4 ✓ isomers.

QUESTION 13

Drag and drop the correct options to complete the table.

Hydrocarbon	Boiling Point (°C)
$CH_3CH_2CH_2CH_2CH_2CH_3$	69
	60

	58 ✓

73 64 100

QUESTION 14

Drag and drop the correct options to complete the sentences.

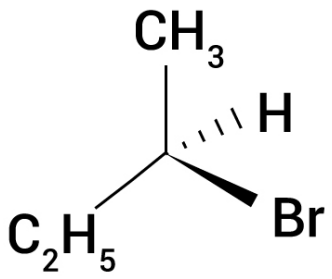
The length of a carbon-carbon bond in a benzene ring is larger ✓ than a carbon-carbon double bond and shorter ✓ than a carbon-carbon single bond. More ✓ energy is needed to break a carbon-carbon bond in a benzene ring than breaking a bond in cyclohexane.

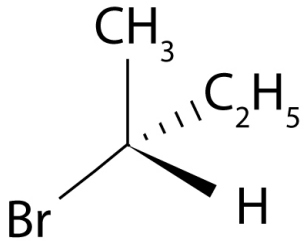
Similar Less

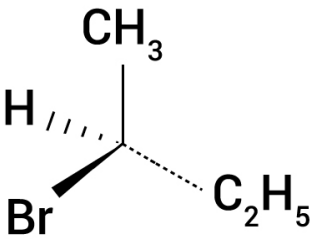
QUESTION 15

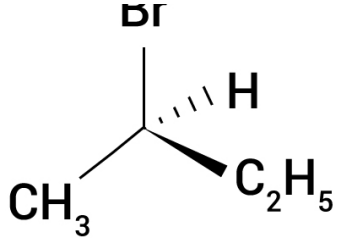
Select the correct answer.

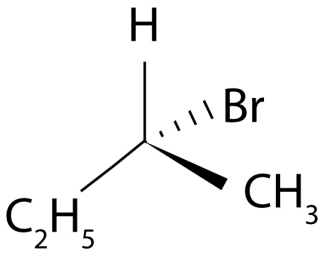
Choose the mirror isomer for the compound shown below.








Br
H
CH3
C2H5


H
Br
C2H5
CH3