



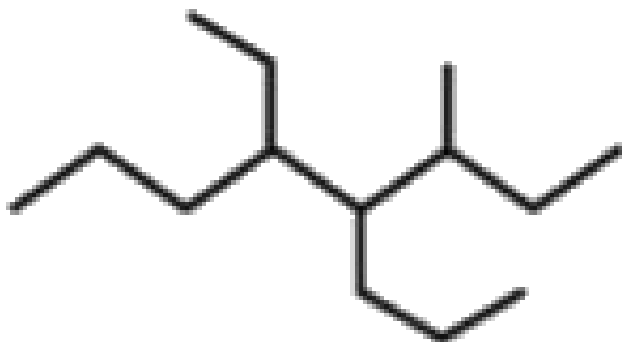
## CHEMISTRY

### BOOKS - NTA MOCK TESTS

### GENERAL ORGANIC CHEMISTRY TEST-1

#### Multiple Choice Questions

1. The correct IUPAC name of the following hydrocarbon is



A. 4-ethyl-6-methyl-5-propyloctane.

B. 3-methyl-4-propyl-5-ethyloctane.

C. 5-ethyl-3-methyl-4-propyloctane.

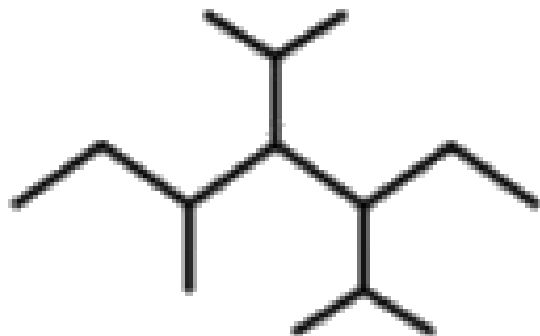
D. 5-ethyl-4-propyl-3-methyloctane.

**Answer: C**



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2. The correct IUPAC name of the following hydrocarbon is



- A. 4,5-diisopropyl-3-methylheptane.
- B. 3-methyl-4,5-diisopropylheptane.
- C. 5-ethyl-4-isopropyl-3,6-dimethylheptane.
- D. 3-ethyl-4-isopropyl-2,5-dimethylheptane.

**Answer: D**

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3.

What is the correct IUPAC name of above compound ?

A. 2-hexen-5-yne

B. 4-hexen-1-yne

C. 5-hexyn-2-ene

D. 1-hexyn-4-ene

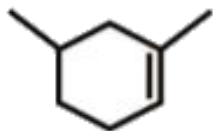
**Answer: B**



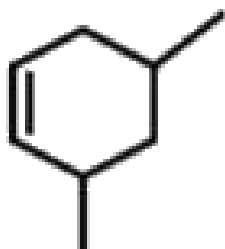
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4. The correct structural formula of compound 1,3-dimethylcyclohexane is

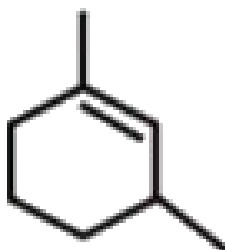
A.



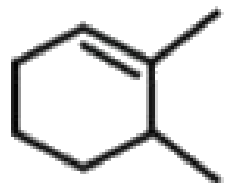
B.



C.

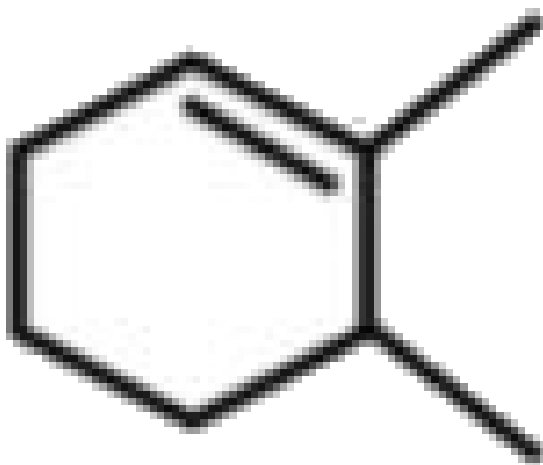


D.



Answer: C

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5.

Which of the following is a correct name of the above compound according to IUPAC conventions ?

A. 1,4-dimethylcyclohexene

B. 2,3-dimethylcyclohexene

C. 1,5-dimethylcyclohexene

D. 1,6-dimethylcyclohexene

**Answer: D**



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**6.** A hydrocarbon has a molecular formula  $C_4H_6$ . Which of the class cannot have this formula?

A. A cycloalkene

B. A bicycloalkane

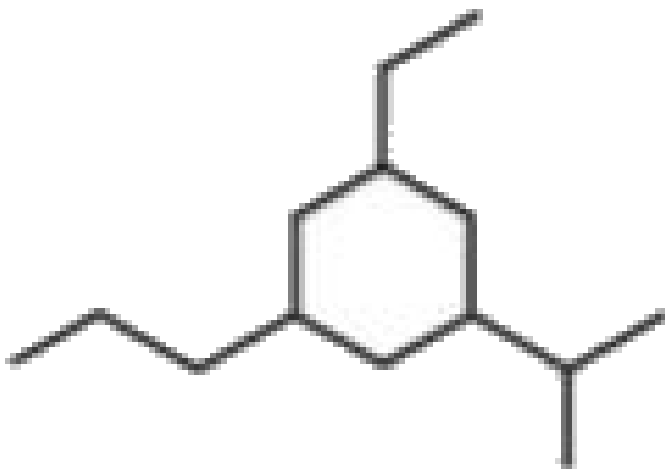
C. A diene

D. A bicycloalkene

Answer: D

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7. The correct IUPAC name of the following compound is



A. 1-ethyl-3-isopropyl-5-propylcyclohexane.



B. 1-propyl-3-isopropyl-5-ethylcyclohexane.

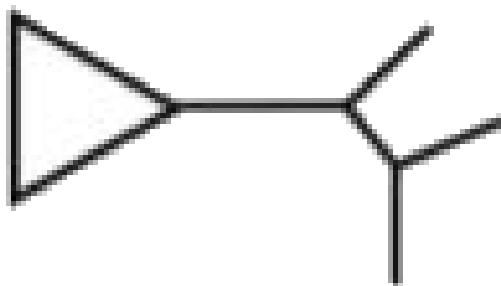
C. 3-ethyl-5-isopropylpropylcyclohexane.

D. 3-ethyl-5-propyl isopropylcyclohexane.

**Answer: A**

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8. The correct IUPAC name of the following compound is



A. 1,2-dimethylpropylcyclopropane

B. 2-cyclopropyl-3-methylbutane.

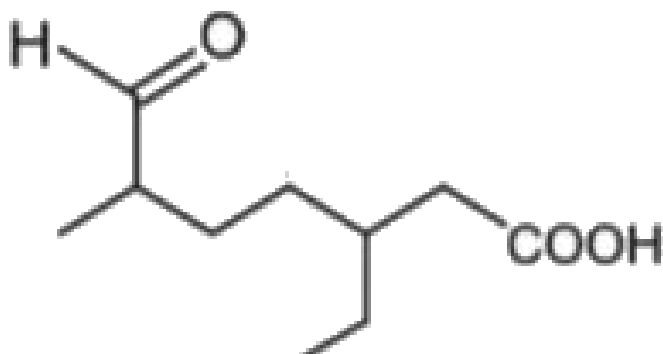
C. 2-methyl-3-cyclopropylbutane.

D. isopentylcyclopropane.

**Answer: B**

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9. The correct IUPAC name of the compound below is



- A. 3-ethyl-6-formylheptanoic acid
- B. 3-ethyl-6-methyl-7-oxoheptanoic acid
- C. 3-ethyl-6-methyl heptan-7-oic acid
- D. 5-ethyl-2-methyl-1-oxoheptanoic acid

**Answer: A**

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**10.** Which of the following compounds cannot have the condensed formula  $C_5H_{10}O$ ?

- A. An aldehyde
- B. A ketone

C. An alkenol

D. A cyclic ketone

**Answer: D**

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11. An organic compounds has molecular formula  $C_6H_{10}O_2$ . Which of the following class of compounds cannot have this molecular formula?

A. An unsaturated, acyclic carboxylic acid

B. A dialdehyde

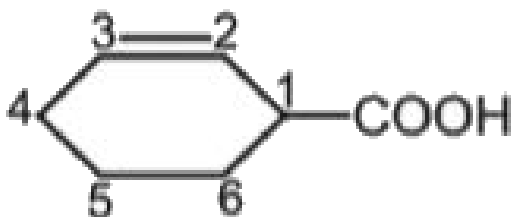
C. A diketone

D. An unsaturated, acyclic diol with one double bond

Answer: D

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12. Consider the following compound and its name.



2-cyclohexenoic acid

Something wrong is there in the given name. What is the mistake in naming of above compound?

A. Numbering is done wrongly.

B. Position of double bond is not specified in the name.

C. Position of -COOH is not specified in the name

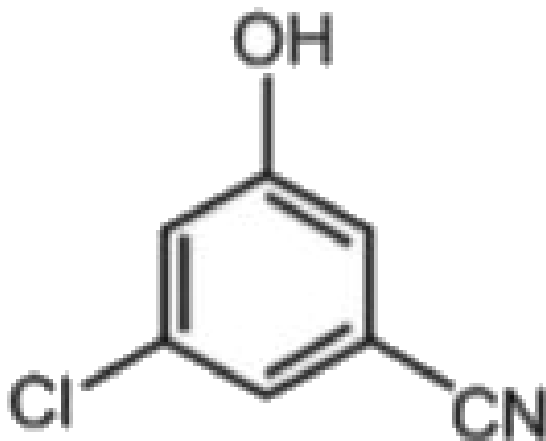
D. Suffix is used wrongly.

**Answer: D**



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13. IUPAC name of the following compounds is

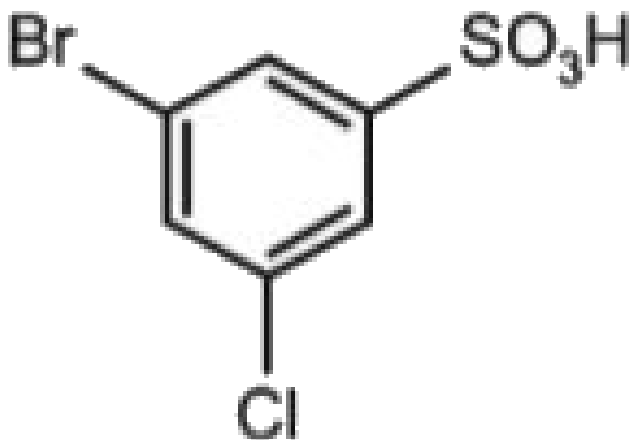


- A. 3-hydroxy-5-chlorobenzonitrile
- B. 3-chloro-5-hydroxybenzonitrile
- C. 3-chloro-5-cyanophenol
- D. 3-cyano-5-chlorophenol

**Answer: B**



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14.

This compounds can be named according to IUPAC conventions as

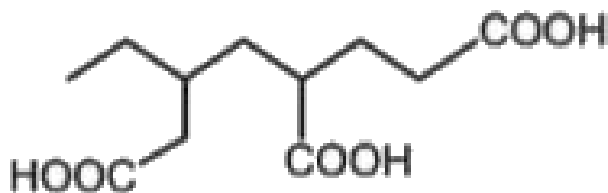
- A. Metachloro-metabromo benzene sulphonic acid
- B. Metabromometachloro benzene sulphonic acid
- C. 3-bromo-5-chlorobenzene sulphonic acid
- D. 5-bromo-3-chloro benzene sulphonic acid



Answer: C

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15. IUPAC name of the following compound is

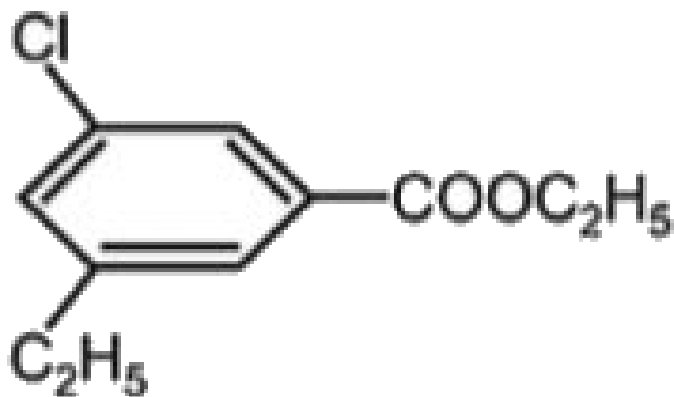


- A. 6-ethyloctane-1, 4, 8-trioic acid.
- B. B 3-ethyloctane-1,5,8- tricarboxylic acid.
- C. 3-carboxy-5-ethyloctane-4, 6dioic acid.
- D. 4-carboxy-6-ethyloctane3, 4dioic acid.

Answer: B

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16. According to IUPAC convention, name of the following compound is:



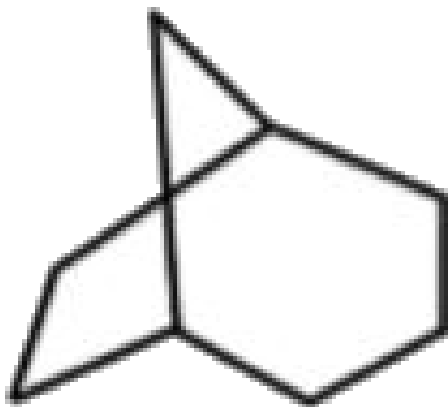
- A. Ethyl-3-chloro-5-ethylbenzoate
- B. Ethyl-3-ethyl-5-chlorobenzoate
- C. Metachloro-metaethyl ethylbenzoate

D. None of the above

**Answer: A**

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17. What is the correct IUPAC name of the following compounds ?



A. Bicyclooctane

B. Tricyclooctane

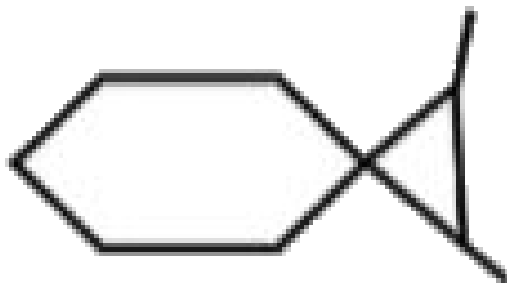
C. Bicyclo[3.2.1] octane

D. Bicyclo[1.2.3] octane

**Answer: C**

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**18.** What is the IUPAC name of following compounds ?



A. 1,2-dimethylcyclopropylcyclohexane

B. 1,2-dimethylspiro[2.5] octane

C. 7, 8-dimethylspiro[5.2] octane

D. 1,2-dimethyl bicyclo[5.2] octane

**Answer: B**



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**19.** What is true about IUPAC naming of organic compound ?

A. Two different compounds may have same IUPAC names.

B. Naming is done according to source of occurrence of compounds.

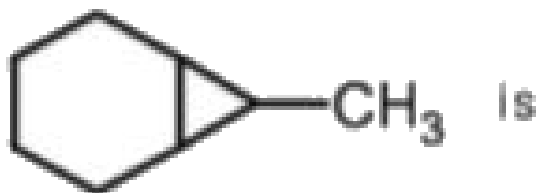
C. Naming is done according to convention rules laid by IUPAC.

D. None of these

**Answer: C**

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20. Systematic nomenclature of

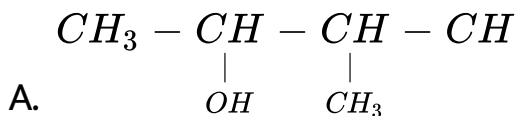


- A. 1-methylbicyclo (4.1.0) heptane.
- B. 2-methylbicyclo (4.1.0) heptane.
- C. 4-methylbicyclo (4.1.0) heptane.
- D. 7-methylbicyclo (4.1.0) heptane.

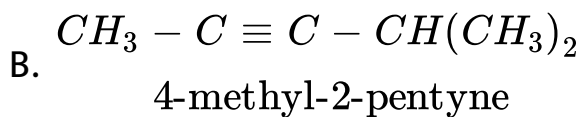
**Answer: D**

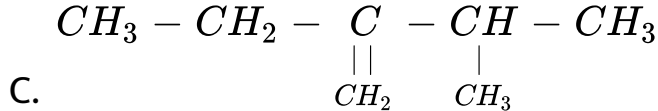
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**21.** Names of some compounds are given. Which one is not correct in IUPSC system ?



3-methyl-2-butanol

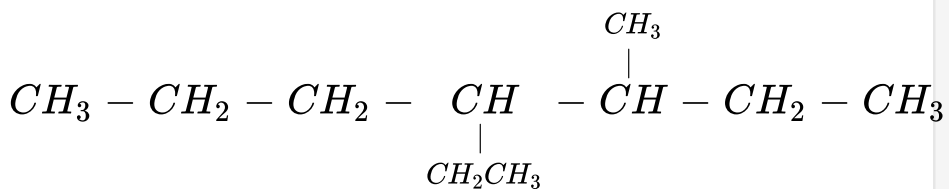




C.

2-ethyl-3-methyl-but-1-ene

D.



3-methyl-4-ethylheptane

**Answer: D**

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22. Which of the following contains isopropyl group ?

A. 2,2,3,3-tetramethylpentane

B. 2-methylpentane



C. 2,2,3-trimethylpentane

D. 3,3-dimethylpentane

**Answer: B**



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**23. Which is not the correct nomenclature ?**

A. Ethanedioic acid

B. 4-pentanone

C. Pentanedial

D. Pent-2-ene

**Answer: B**



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24. 2,2,3,3-tetramethylbutane reacts with  $Cl_2$  such that one H-atom is replaced by Cl atom. IUPAC name of the product obtained is

- A. 2-chloromethyl-2,2,3-tetramethylbutane
- B. 1-chloro-2,2,3,3-tetramethylbutane
- C. Both are acceptable
- D. None is acceptable

**Answer: B**



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25.  $PCl_5$  causes cleavage of ether linkage R-O-R forming  $PCl_3$ ,  $R'Cl$  and  $POCl_3$ .  $C_5H_{12}O$  on reaction with  $PCl_5$ , forms 2-chloropropane and 1-chloroethane as main compounds.

Thus,  $C_5H_{12}O$  is named as

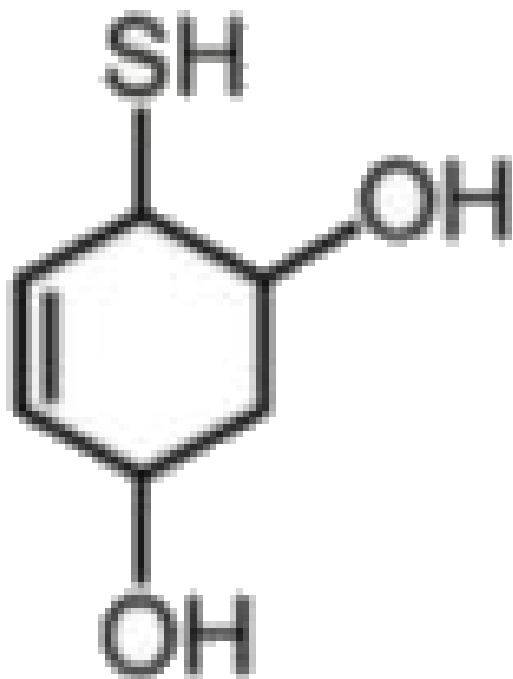
- A. 1-ethoxypropane
- B. 2-ethoxypropane
- C. 1-ethylpropane
- D. 2-ethylpropane

**Answer: B**



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26. Following compound is named as

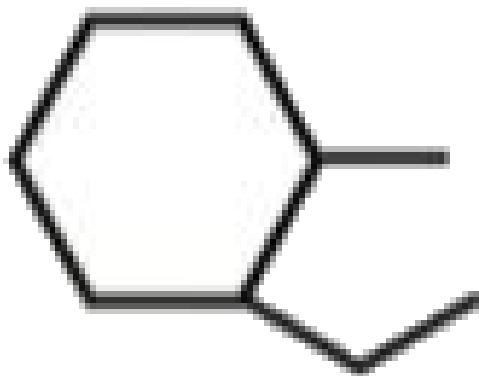


- A. 6-mercaptocyclohex-4-ene-1,3-diol
- B. 1-mercaptocyclohex-2-ene-4,6-diol
- C. 1-mercaptocyclohex-5-ene-2,4-diol
- D. 4-mercaptocyclohex-2-ene-1,5-diol

Answer: A

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27. IUPAC name of the following compound is :



A. 2-methyl-1-ethylcyclohexane

B. 1-ethyl-2-methylcyclohexane

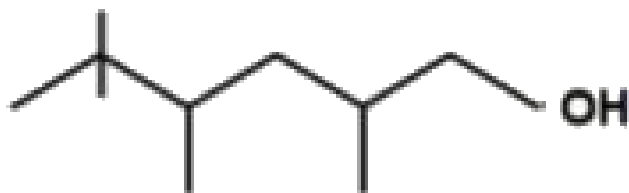
C. 6-ethyl-1-methylcyclohexane

D. 1-ethyl-6-methylcyclohexane

**Answer: B**

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28. Number of primary, secondary and tertiary hydrogen in the following compound are respectively



A.  $1^\circ$      $2^\circ$      $3^\circ$   
18    2    2

B.  $1^\circ$      $2^\circ$      $3^\circ$   
16    4    2

C.  $1^\circ$     $2^\circ$     $3^\circ$   
17   2   2

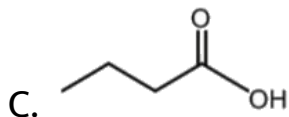
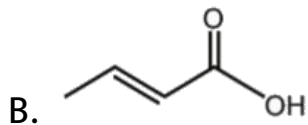
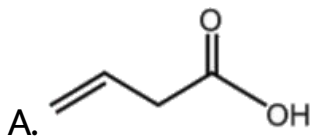
D.  $1^\circ$     $2^\circ$     $3^\circ$   
17   2   1

**Answer: C**

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**29.** 3-butenic acid (or but -3-enoic acid) is represented

as



D. None of these

**Answer: A**



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**30.** In the dichlorination reaction of propane, a mixture of various products are obtained. How many isomers does the mixture contain?

A. 2

B. 3

C. 4

D. 5



**Answer: D**



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