Organic: alkanes, alkenes, alkynes

1. An alkyne is represented by the molecular formula
2. C3H6 b) C4H6

c) C5H12 d)C6H6

1. Which of the following compounds is a **saturated aliphatic**?
2. C6H5CH3 b) C7H16

c) C9H18 d) C5H8

1. The molecular formula for the **third member** of the alkyne series is \_\_\_\_\_\_\_\_\_\_\_\_\_
2. C3 H8 b) C3H4

c) C3H6 d) C4H6

1. The carbon-carbon bonds in benzene are
2. identical to the carbon-carbon bonds in cyclohexane
3. identical to the carbon-carbon bonds in cyclohexene
4. a hybrid between a double and single bonds
5. easily broken in chemical reactions
6. If alkanes, alkenes and alkynes are ranked from the most reactive homologous series to the least reactive homologous series, the order would be \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. alkanes, alkenes, alkynes
8. alkenes, alkynes, alkanes
9. alkynes, alkenes, alkanes
10. alkynes, alkanes, alkenes
11. Consider the following statements.

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| --- | --- |
| Number | Statement |
| I | Alkanes prefer to undergo substitution with halogens. |
| II | Alkenes prefer to undergo substitution with halogens |
| III | Alkanes prefer to undergo addition with halogens. |
| IV | Alkynes prefer to undergo addition halogens. |

The **false statements** are:

1. I and IV b) I and II

c) II and III d) II and IV

Solutions:

1. B 2. B 3. D 4. C 5. C 6. C