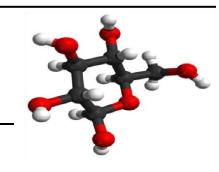
ORGANIC CHEMISTRY

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- 1. Indicate whether each is saturated or unsaturated, and state whether it is an alkane, alkene, or alkyne: C_5H_{10} , $C_{12}H_{22}$, CH_4 , C_6H_{10} , C_3H_6 , C_2H_6 , C_7H_{12}
- 2. Name each:

(f)
$$\begin{array}{ccc} & H & H \\ H - C - C = C - H \\ H & H \end{array}$$

- 3. Name each: C_6H_{12} , C_4H_6 , $C_{10}H_{22}$, C_3H_8 , C_5H_8 , C_7H_{14} , C_8H_{18} , CH_4 , C_2H_4 , C_9H_{16}
- **4.** Write the formula for each: heptyne, hexane, propene, octyne, ethene, pentane



- **5.** Draw each: pentyne, ethene, propane, butene, octane, hexyne.
- **6.** Name each:

$$\begin{array}{c} \text{(d)} \\ \text{H} \\ \text{C=C} \\ \text{H} \end{array}$$

7. Name each:

8. Draw each:

(a) 2,3-dimethyl octane

(b) 3-ethyl, 2-methyl heptane

(c) 3,6-dibromo 6-chloro, 3-methyl nonane

(d) 1,1,7,7-tetrachloro

(e) 4,4-diethyl heptane

(f) 2-fluoro, 2-methyl butane

(g) 2,2,4-trichloro pentane

9. Name each:

(a)
$$H - C = C - C - C - H$$

$$H H H$$

(b)
$$H - C - C = C - C - H$$

10. Name each:

11. Name each: C₂H₅COOH, C₄H₉COOH, H₃COOH, HCOOH

12. Name each:

13. Name: CH₃CH₂CHOHCH₃

14. Name:

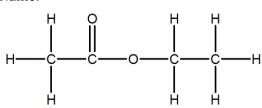
$$\begin{array}{c|cccc} H & O & H \\ \hline & & & \\ H & & C & C & C & H \\ \hline & & & & \\ H & & & H \end{array}$$

15. Name:

16. Name: CH₃CH₂CH₂OCH₂CH₃

17. Name: CH₃OCH₃

18. Name:



19. Name:

20. Name: CH₃CH₂CH₂CHOHCH₂CH₂CH₂CH₃

21. Name: CH₃CHO

22. Name: CH₃CH₂COOCH₂CH₂CH₂CH₃

23. Name:

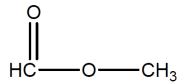
24. Name: CCl4

25. Name: CF₂CH₂

26. Name: CH₃CH₂OCH₂CH₃

27. Name: CH3CH2CH2CH2CH2CH2OH

28. Name:



29. Name: CH₃CH₂CHOH CH₂CH₂CH₃

30. Name: CH₃CH₂CH₂CH₂CH₂CH₂CH₂CHO

31. Name: CH₃CH₂CHBrCH₂CH₂CH₂CH₂CH₃

32. Name: CH₃CHNH₂CH₂CH₃

33. What forms from the complete combustion of a hydrocarbon?

34. A hydrocarbon reacts with fluorine. Under which conditions will substitution occur, and under which conditions will addition occur?

35. What is butylpentanoate? How does it form?

36. How is soap made?

37. What is the process of joining many small molecules into larger molecules is called?