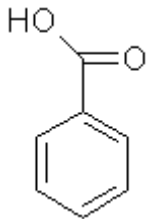
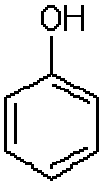


Worksheet- naming of organic compound

1. Name the following compounds.

<p>1)</p> $ \begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\ \quad \quad \\ \text{Br} \quad \text{Br} \quad \text{H} \end{array} $	<p>2)</p> $ \begin{array}{c} \text{O} \\ \\ \text{H}_3\text{C}-\text{C}-\text{C}-\text{NH}_2 \\ \quad \\ \text{H}_2 \quad \text{H}_2 \end{array} $
<p>3)</p> $ \begin{array}{c} \text{CH}_3 \\ \\ \text{H}_3\text{C}-\text{C}-\text{C}-\text{CH}_2\text{OH} \\ \quad \\ \text{H} \quad \text{H} \end{array} $	<p>4)</p> $ \begin{array}{c} \text{H} \quad \text{H} \quad \text{O} \quad \text{H} \\ \quad \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \end{array} $
<p>5)</p> $ \begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H}-\text{C}-\text{C}-\text{C}=\text{O} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \end{array} $	<p>6)</p> $ \begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{C}=\text{O} \\ \quad \\ \text{H} \quad \text{O} \\ \quad \quad \\ \quad \quad \text{H} \\ \quad \quad \\ \quad \quad \text{H} \end{array} $
<p>7)</p> 	<p>8)</p> 

Draw structures of the following compounds.

9) 2 chloro butane

10) pentan-2-one

11) ethane nitrile

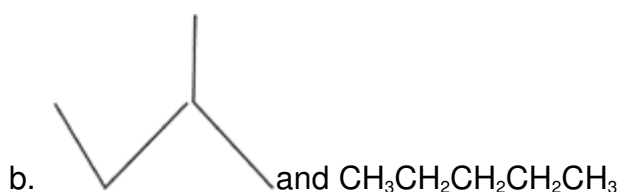
12) ethyl propanoate

13) 2, 2, dimethyl pentane

14) amino ethanoic acid

15) hexanamide

2. Which of the following pairs are structural isomers?



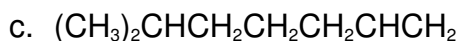
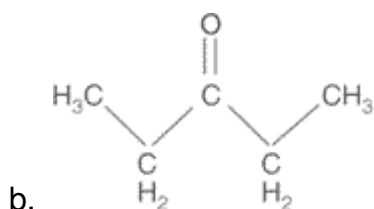
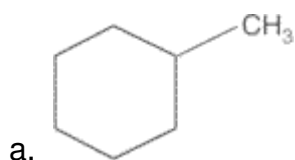
3. What is the empirical formula of a hydrocarbon that produces 2.703 g CO_2 and 1.108 g H_2O when combusted?

4. What is the empirical formula of a substance containing carbon, hydrogen, and oxygen if 1.000 g of substance produces 1.467 g CO_2 and 0.6003 g H_2O upon combustion?

5. The molar mass of the substance in example 4 is 120 g/mol. What is its molecular formula?

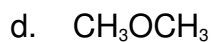
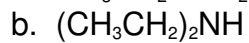
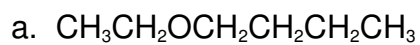
6. What is the molecular formula of a substance containing carbon, hydrogen, and oxygen if it has a molar mass of 234 g/mol and 0.360 g of substance produces 0.406 g CO_2 and 0.250 g H_2O upon combustion?

7. What are the names of the following compounds?





8. Name the following compounds.



9. What are the structures of the following compounds?

a. 2,2-dimethylbutane

b. 3-propyl-5-hexynal (hexynal)

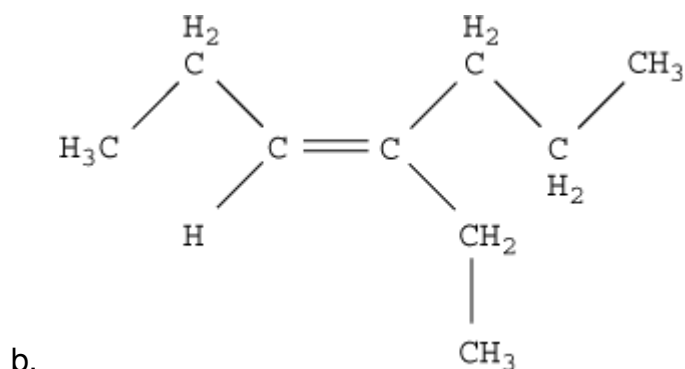
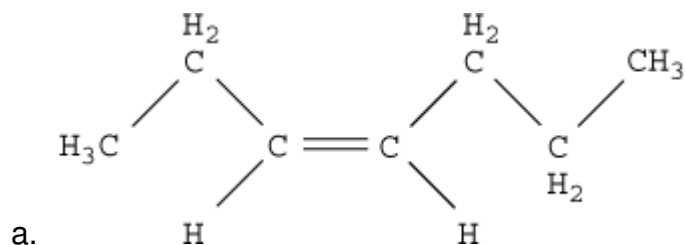
c. 1-octanol

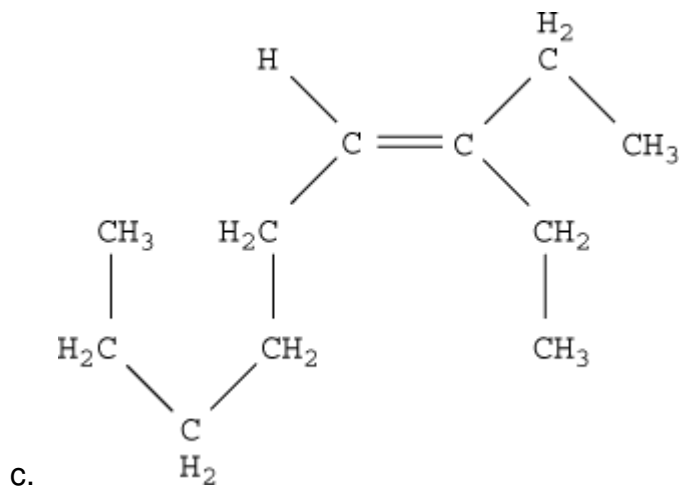
d. tripropylamine

e. 3-methylpentanoic acid

f. 5-ethyl-2-heptyne

10. Identify the following as *cis* and *trans* isomers. Name each compound.





11. Identify the functional groups of the following compounds

