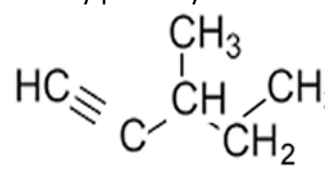
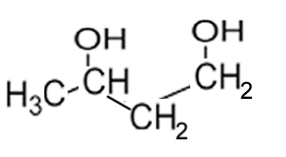
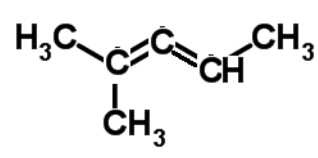
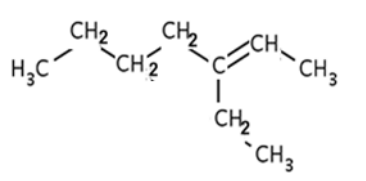
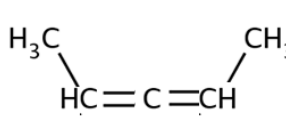
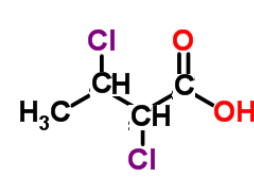
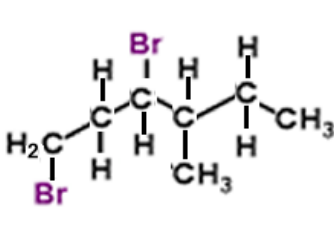
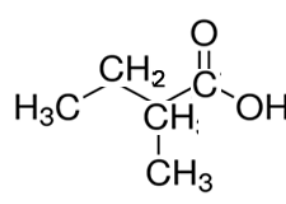
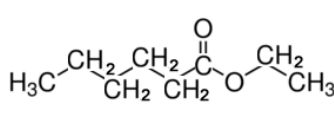
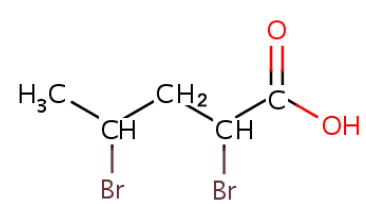
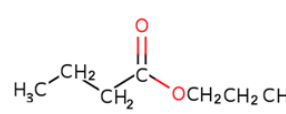
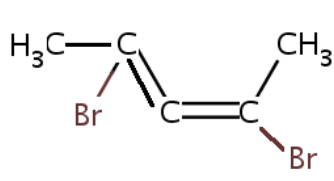
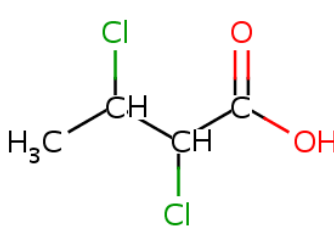

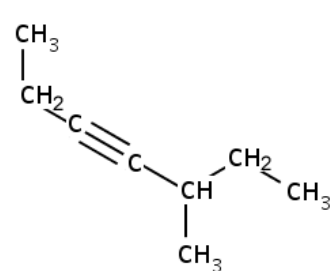


Naming organic molecules

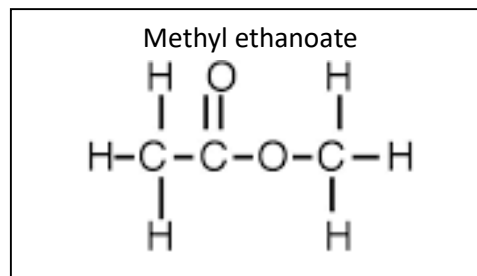
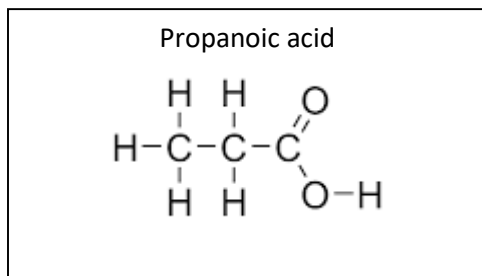
<p>3,3-dimethylbutan-2-ol</p> $ \begin{array}{c} \text{CH}_3 \quad \text{OH} \\ \quad / \\ \text{H}_3\text{C}-\text{C}-\text{CH}_2 \\ \quad \\ \text{CH}_3 \quad \text{CH}_3 \end{array} $	<p>2-methylbut-2-ene</p> $ \begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \text{H}-\text{C}-\text{C}=\text{C}-\text{C}-\text{H} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \quad \quad \text{H} \end{array} $	<p>Ethyl butanoate</p> $ \text{CH}_3\text{CH}_2\text{CH}_2\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{OCH}_2\text{CH}_3 \end{array} $
<p>Butan-2,3-diol</p> $ \begin{array}{c} \text{H} \quad \text{OH} \\ \quad / \\ \text{H}_3\text{C}-\text{C}-\text{CH} \\ \quad \\ \text{OH} \quad \text{CH}_3 \end{array} $	<p>3-methylhex-1,3-diene</p> $ \begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{H} \\ \\ \text{H}-\text{C}=\text{C}-\text{C}=\text{C}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \\ \quad \quad \\ \quad \quad \text{CH}_3 \end{array} $	<p>Propyl propanoate</p> $ \text{CH}_3\text{CH}_2\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{O}-\text{CH}_2\text{CH}_2\text{CH}_3 \end{array} $
<p>3,2-dichlorobutan-1-ol</p> $ \begin{array}{c} \text{Cl} \quad \text{Cl} \quad \text{H} \\ \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \\ \quad \quad \\ \quad \quad \text{HO}-\text{C}-\text{H} \\ \quad \quad \\ \quad \quad \text{H} \end{array} $	<p>2-methylbutanoic acid</p> $ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}_3\text{C}-\text{C}-\text{C}-\text{C}-\text{OH} \\ \quad \\ \text{H} \quad \text{CH}_3 \end{array} $	<p>Butyl ethanoate</p> $ \text{CH}_3\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{O}-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \end{array} $
<p>1,2-dichloro-3,3-methylbutan-1-ol</p> $ \begin{array}{c} \text{Cl} \quad \text{Cl} \quad \text{CH}_3 \\ \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{CH}_3 \\ \quad \quad \\ \text{HO} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \quad \quad \text{H}-\text{C}-\text{H} \\ \quad \quad \\ \quad \quad \text{H} \end{array} $	<p>3-methylpentanoic acid</p> $ \begin{array}{c} \text{CH}_3 \\ \\ \text{CH}_2\text{CH}_2\text{CH}_2\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{OH} \end{array} \\ \\ \text{CH}_3 \end{array} $	<p>Propyl pentanoate</p> $ \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{O}-\text{CH}_2\text{CH}_2\text{CH}_3 \end{array} $
<p>2-bromo-2-chloro-3-methylbutane</p> $ \begin{array}{c} \text{Br} \quad \text{CH}_3 \\ \quad \\ \text{CH}_3-\text{C}-\text{CH}-\text{CH}_3 \\ \quad \\ \text{Cl} \quad \text{H} \end{array} $	<p>5-bromo-3-chloro-3-methylpentanoic acid</p> $ \begin{array}{c} \text{CBrH}_2 \\ \\ \text{CH}_2\text{CClCH}_2\text{C} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{OH} \end{array} \\ \\ \text{CH}_3 \end{array} $	<p>2,3-dimethylbutanoic acid</p> $ \begin{array}{c} \text{CH}_3 \\ \\ \text{CH}_3\text{CHCHC} \begin{array}{l} \diagup \text{O} \\ \diagdown \text{OH} \end{array} \\ \\ \text{CH}_3 \end{array} $

<p>3-methylpent-1-yne</p> 	<p>Butan-1,3-diol</p> 	<p>2-methylpent-2,3-diene</p> 
<p>3-ethylhept-2-ene</p> 	<p>Pent-2,3-diene</p> 	<p>2,3-dichlorobutanoic acid</p> 
<p>1,3-dibromo-4-methylhexane</p> 	<p>2-methylbutanoic acid</p> 	<p>ethyl hexanoate</p> 
<p>2,4-dibromopentanoic acid</p> 	<p>Propyl butanoate</p> 	<p>2,4-dibromopent-2,3-diene</p> 
<p>2,3-dichlorobutanoic acid</p> 	<p>2,4-dichlorohexan-2-ol</p> 	<p>5-methylhept-3-yne</p> 

1) Correct the following names by rewriting them in the correct format.

- i. The compound 1-2,dibromo ethane
1,2-dibromoethane
- ii. The ester called Hexanol butanoic
Hexyl butanoate
- iii. The compound 3-ethylpropan-1-ol
Pentan-1-ol
- iv. The compound called 4-methylbutan-2-ol
Pentan-2-ol
- v. An ester written as metholbutyric
Methyl butanoate
- vi. A compound named 3,4-dimethylpentan-1-ol
3,4-dimethylpentan-1-ol
- vii. An alkene called prop-2-ene
Propene
- viii. An alkene called but-4-ene
Bute-1-ene
- ix. The carboxylic acid 1-pentanoic acid
Pentanoic acid
- x. The compound propan-3-ol
Propan-1-ol

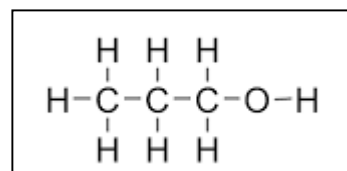
2) Draw the structural formula and name two isomers with the molecular formula $C_3H_6O_2$



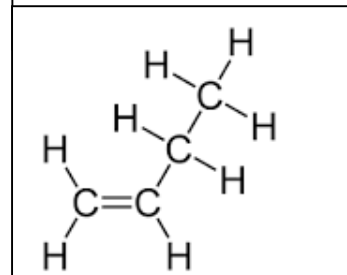
3) Below are the structural formulae of a select number of molecules. Name:

- the functional group present
- the homologous group to which they belong
- the next compound in the series

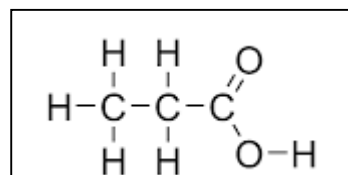
- a) Functional group hydroxy (OH)
- b) Homologous series alcohols
- c) Next molecule in the series butanol



- a) Functional group C=C
- b) Homologous series Alkenes
- c) Next molecule in the series Pentene



- a) Functional group Carboxy (COOH)
b) Homologous series Carboxylic acids
c) Next molecule in the series Butanoic acid



- a) Functional group **Carbon to carbon triple bond**
b) Homologous series Alkynes
c) Next molecule in the series Butyne

