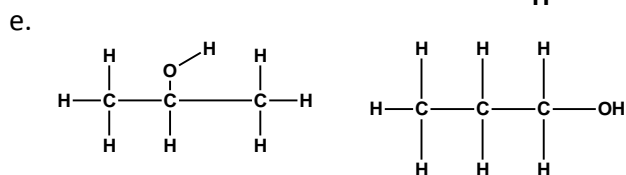
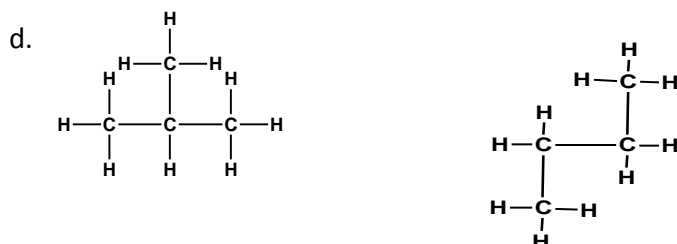
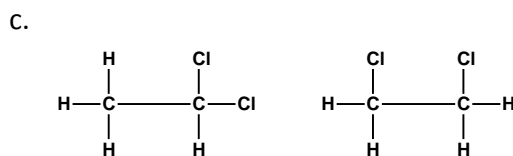
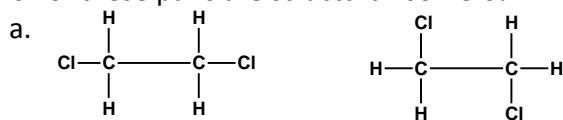

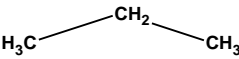
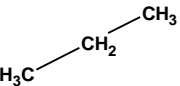
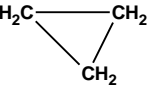


Isomers – Worksheet #6

1. Which of these pairs are structural isomers?



2. Examine each of the following pairs of structures and decide if the two are identical, isomers or different compounds.

	Chemical structure	Chemical structure	Identical/ Isomers/ Different compounds
a.		$\text{H}_3\text{C}-\text{CH}_3$	
b.			
c.	$\text{H}_3\text{C}-\text{CH}_2-\text{OH}$	$\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{OH}$	
d.	$\text{H}_3\text{C}-\text{CH}=\text{CH}_2$		

e.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{C}-\text{H} \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{C}-\text{CH}_3 \end{array}$	
f.	$\begin{array}{c} \text{CH}_3 \\ \\ \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \end{array}$	$\begin{array}{c} \text{CH}_3 \\ \\ \text{H}_3\text{C}-\text{CH} \\ \\ \text{CH}_3 \end{array}$	
g.	$\text{H}_3\text{C}-\text{CH}_2-\text{NH}_2$	$\begin{array}{c} \text{H} \\ \\ \text{H}_3\text{C}-\text{N}-\text{CH}_3 \end{array}$	
h.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{CH}_2-\text{C}-\text{O}-\text{H} \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{O}-\text{C}-\text{CH}_2-\text{CH}_3 \end{array}$	
i.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{C}-\text{O}-\text{CH}_2-\text{CH}_3 \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{CH}_2-\text{C}-\text{O}-\text{H} \end{array}$	
j.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{C}-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH} \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{HO}-\text{CH}_2-\text{CH}_2-\text{C}-\text{OH} \end{array}$	
k.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{C}-\text{CH}_2\text{CH}_3 \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{CH}_2-\text{C}-\text{CH}_3 \end{array}$	
l.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\ \\ \text{H}_2\text{C}-\text{CH}_2 \\ \quad \\ \text{H}_2\text{C}-\text{C}-\text{HC} \\ \quad \quad \\ \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \end{array}$	$\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\ \quad \\ \text{H}_3\text{C}-\text{CH}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{CH}-\text{CH}_3 \\ \\ \text{CH}_3 \end{array}$	
m.	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{NH}-\text{C}-\text{CH}_3 \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_3\text{C}-\text{CH}_2-\text{C}-\text{NH}_2 \end{array}$	
n.	$\text{H}-\text{O}-\text{O}-\text{H}$	$\text{H}-\text{O}-\text{H}$	
o.	$\begin{array}{c} \text{H}_3\text{C} \quad \text{CH}_3 \\ \diagdown \quad / \\ \text{C}=\text{C} \\ / \quad \diagdown \\ \text{H}_3\text{C} \quad \text{H} \end{array}$	$\begin{array}{c} \text{H}_3\text{C} \quad \text{H} \\ \diagdown \quad / \\ \text{C}=\text{C} \\ / \quad \diagdown \\ \text{H}_3\text{C} \quad \text{CH}_3 \end{array}$	
p.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2 \quad \text{CH}_3 \\ \diagdown \quad / \\ \text{C}=\text{C} \\ / \quad \diagdown \\ \text{H}_3\text{C} \quad \text{H} \end{array}$	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2 \quad \text{H} \\ \diagdown \quad / \\ \text{C}=\text{C} \\ / \quad \diagdown \\ \text{H}_3\text{C} \quad \text{CH}_3 \end{array}$	

