

Organic Chem Problem Set #1

Name each molecule, or draw them if the name is provided.

H atoms don't have to be drawn.

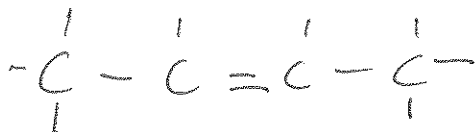
Answers

0-1

Draw pentane



Draw 2butene



Draw 3heptyne



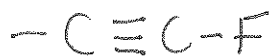
Draw 2bromo,1,1 dichloropropane



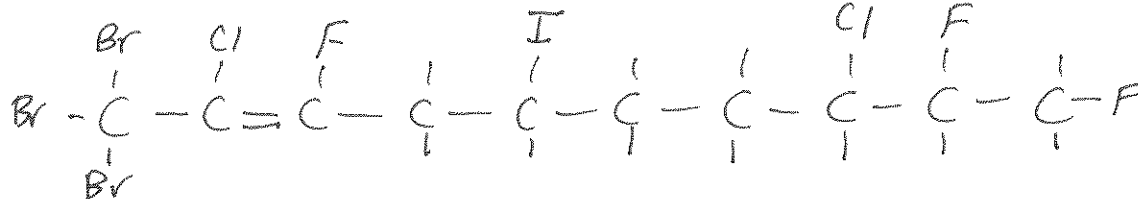
Draw 3,4dichloro, 1pentyne



Draw fluoroethyne

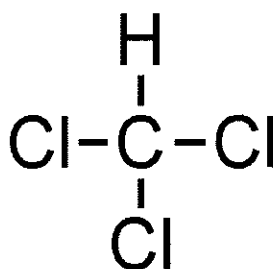
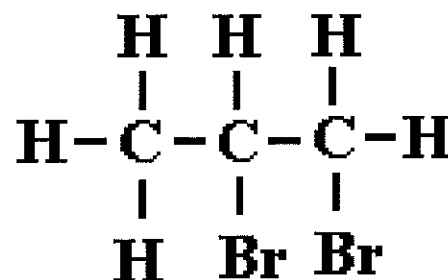


Draw 1,1,1 tribromo,2,8 dichloro, 3,9,10 trifluoro, 5 iodo-2decene



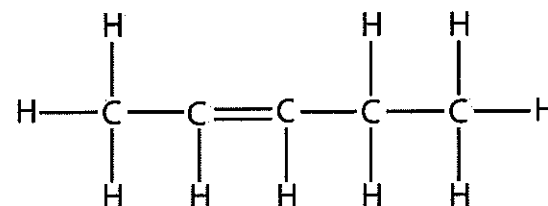
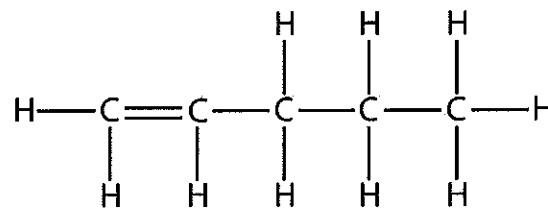
Name these 5

1,2 dibromo
propane

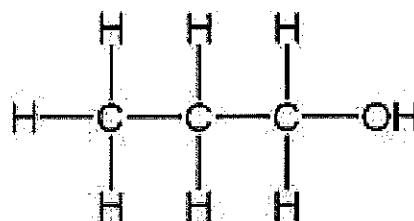


trichloro methane

1-pentene



2-pentene



1-propanol

Organic Chem Problem Set #2

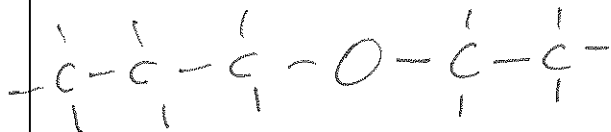
Answers



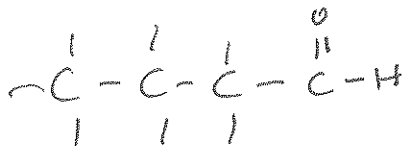
Name each molecule, or draw them if the name is provided.

H atoms don't have to be drawn.

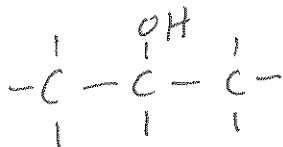
Draw ethyl propyl ether



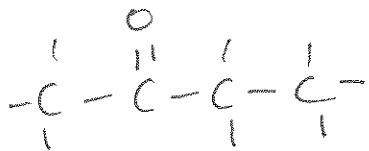
Draw butanal



Draw 2propanol



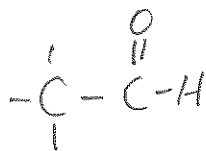
Draw 2butanone



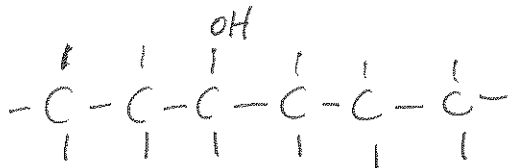
Draw diethyl ether



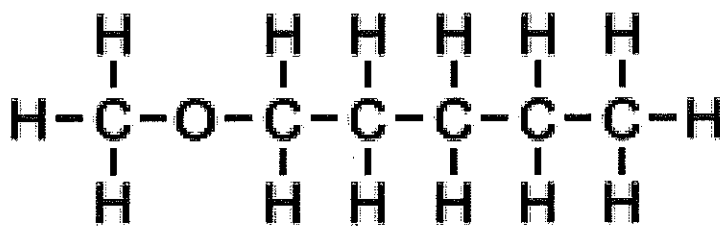
Draw ethanal



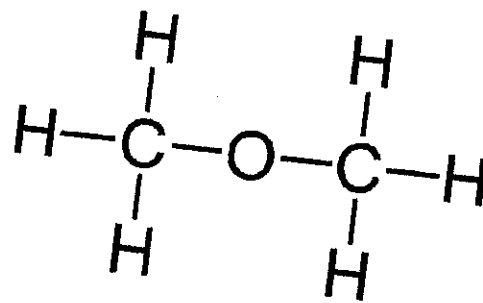
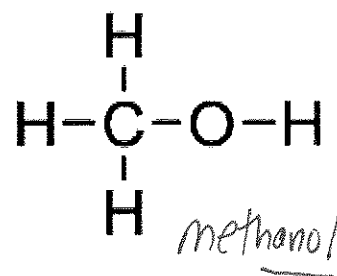
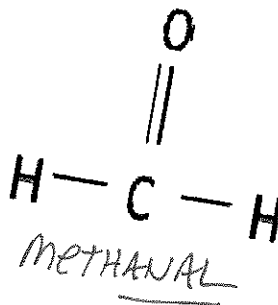
Draw 3hexanol



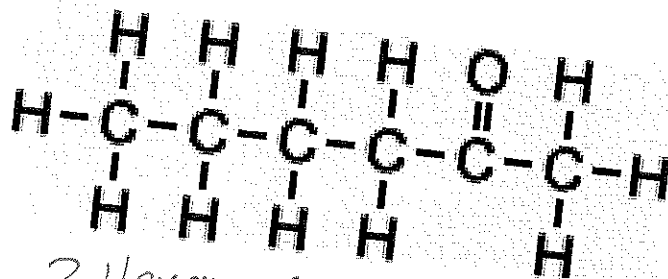
Circle the functional groups and name these 5



METHYL PENTYL ETHER

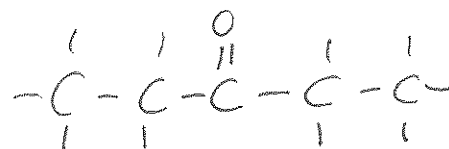


diMethyl ether



2 Hexanone

Draw 3pentanone



Organic Chem Problem Set #3

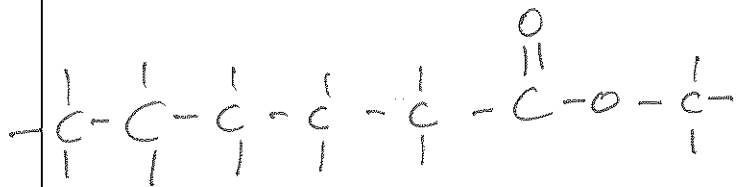
Answers

O-3

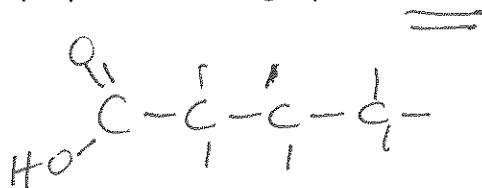
Name each molecule, or draw them if the name is provided.

H atoms don't have to be drawn.

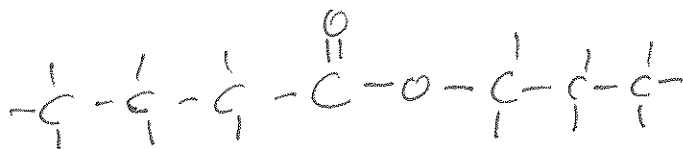
Draw methyl hexanoate (banana oil)



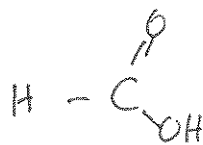
Draw ethanoic acid (but put the functional group on the left side!)



Draw propyl butanoate



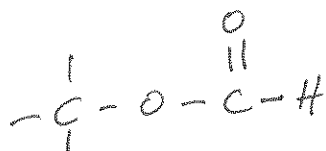
Draw methanoic acid



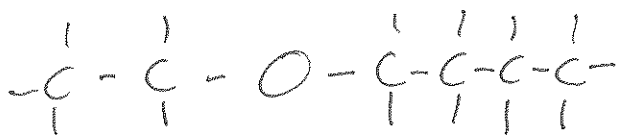
Draw ethyl ethanoate



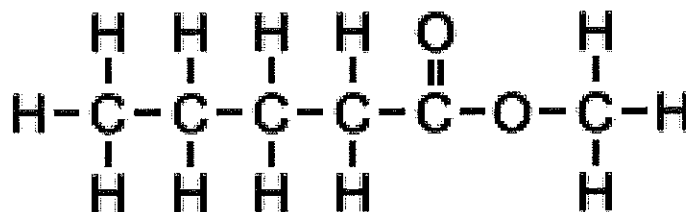
Draw methyl methanoate (put the "oxygen tail to the left!")



Draw butyl ethyl ether

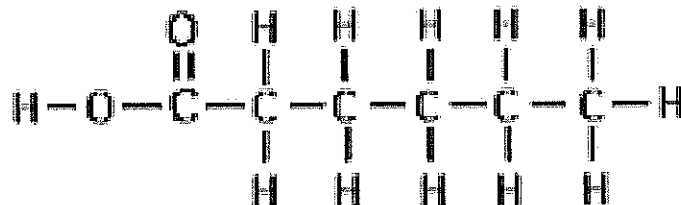
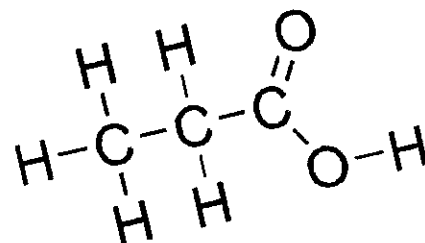


Circle the functional groups and name these

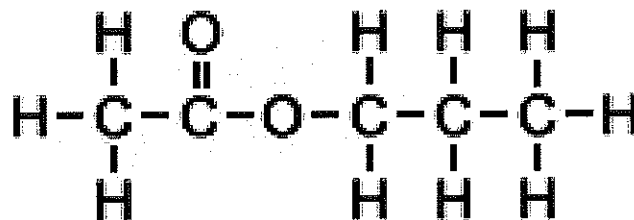


methyl pentanoate

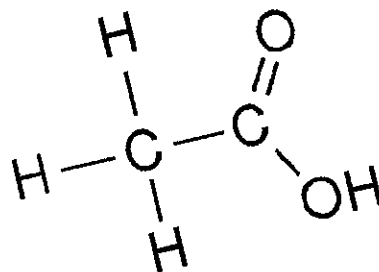
propanoic acid



hexanoic acid



propyl ethanoate



ethanoic acid

Organic Chem Problem Set #4

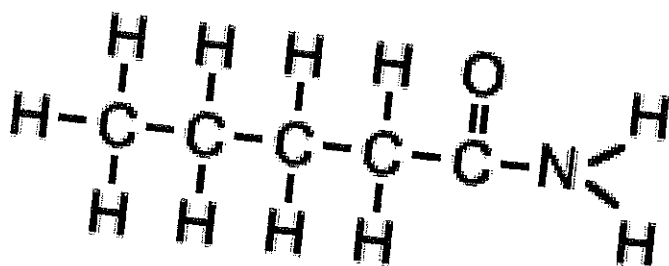
Name each molecule, or draw them if the name is provided.

H atoms don't have to be drawn.

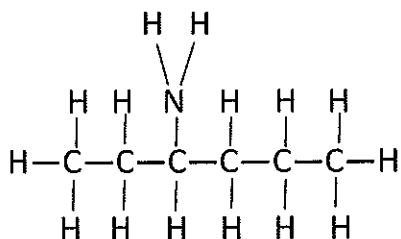
Answers

O-4

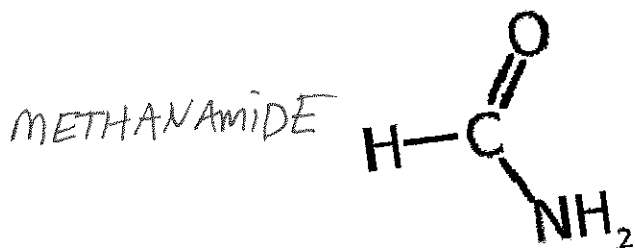
Circle the functional groups and name these



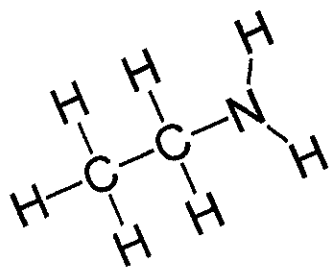
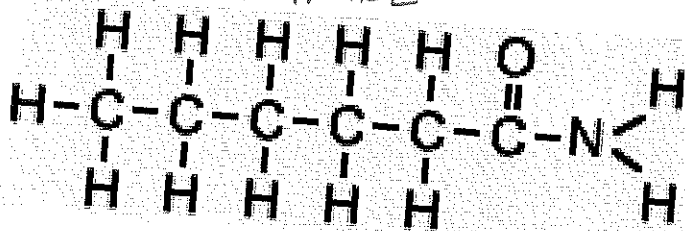
PENTANAMIDE



3 Hexanamine

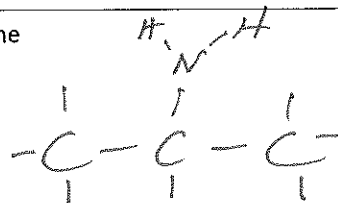


HEXANAMIDE



Ethanamine

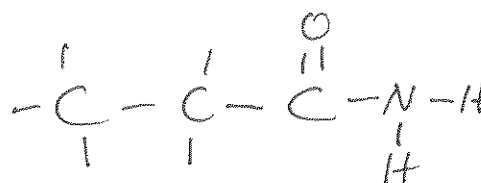
Draw 2 propanamine



Draw 1 propanamine



Draw propanamide



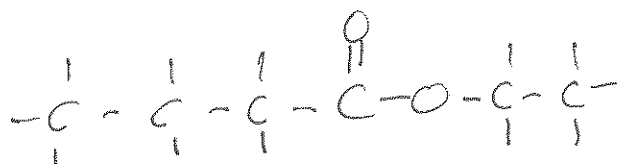
Draw 3 pentanone



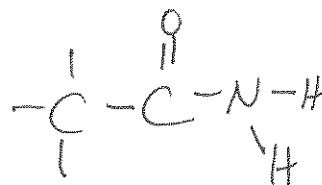
Draw ethanamine



Draw ethyl butanoate



Draw ethanamide



Organic Chem Problem Set #5

Answers

O-5

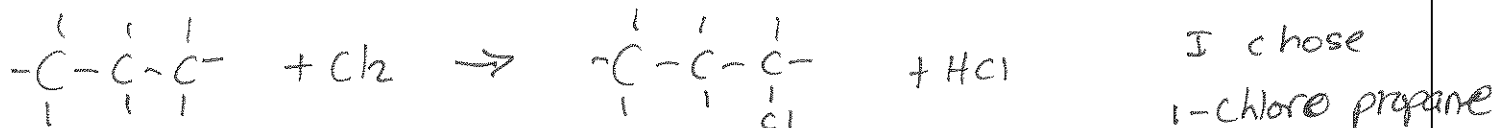
Draw out these reactions.

H atoms don't have to be drawn.

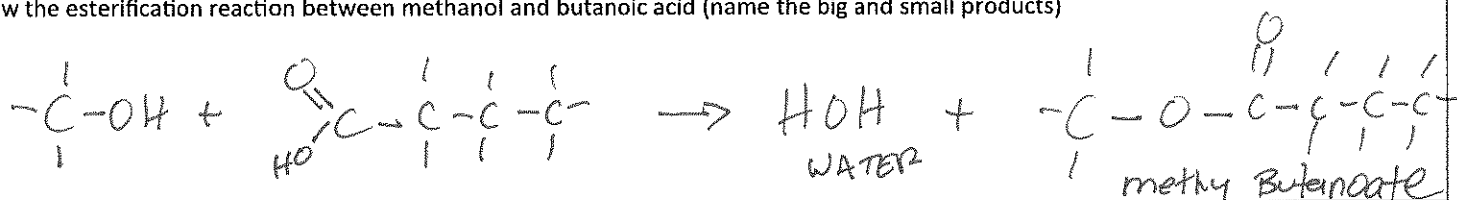
Show the structural diagrams of the molecules propyne + bromine in an addition reaction, and name the big product



Show the structural diagrams of the molecules propane + chlorine in an substitution reaction (name the big product)



Show the esterification reaction between methanol and butanoic acid (name the big and small products)



Show the substitution reaction between butane and bromine (name the big product)

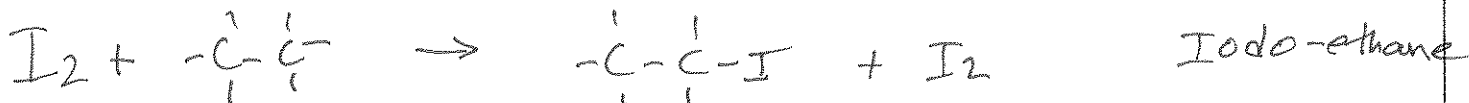


Show the esterification reaction between propanol and methanoic acid (name the big products properly)



Make up an esterification reaction, name both reactants and both products properly (not one from above)

Show the substitution reaction between IODINE and ethane (name the bigger product)



Show the addition reaction between 2butyne and fluorine (name the product)



Organic Chem Problem Set #6

Answers

O-6

Change these condensed structural formulas into diagrams, or change these diagrams into condensed structural formulas. H atoms don't have to be drawn.

Name	DRAW all MOLECULES here
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CHCHCH}_2\text{CH}_2\text{CH}_3$ 4 octene	$\begin{array}{cccccccc} & & & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & =\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & & & & \end{array}$
$\text{CH}_3(\text{CH}_2)_3\text{CH}_3$ pentane	$\begin{array}{ccccc} & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & \end{array}$
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{COOCH}_2\text{CH}_3$ ethyl pentanoate	$\begin{array}{ccccccc} & & & & \text{O} & & & \\ & & & & & \backslash & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{O} & -\text{C} & -\text{C}- \\ & & & & & & & \end{array}$
$\text{CH}_3\text{CH}_2\text{COOH}$ propanoic acid	$\begin{array}{ccc} & & \text{O} \\ & & \\ -\text{C} & -\text{C} & -\text{C}-\text{OH} \\ & & \text{H} \end{array}$
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$ 1 hexanamine	$\begin{array}{ccccccc} & & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{N}-\text{H} \\ & & & & & & \end{array}$
$\text{CH}_3\text{COCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ 2 hexanone	$\begin{array}{cccccc} & \text{O} & & & & \\ & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & & \end{array}$
$\text{CH}_3\text{OCH}_2\text{CH}_3$ ethyl methyl ether	$\begin{array}{ccc} & & \\ & \text{O} & \\ -\text{C} & -\text{O} & -\text{C} & -\text{C}- \\ & & & \end{array}$
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CHO}$ pentanal	$\begin{array}{ccccc} & & & & \text{O} \\ & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}-\text{H} \\ & & & & \text{H} \end{array}$
$\text{CH}_3\text{CHOCH}_2\text{CH}_2\text{CH}_3$ 3 hexanamine	$\begin{array}{cccccc} & & \text{H} & \text{H} & & \\ & & & & & \\ & & \text{N} & & & \\ & & & & & \\ & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & & \end{array}$