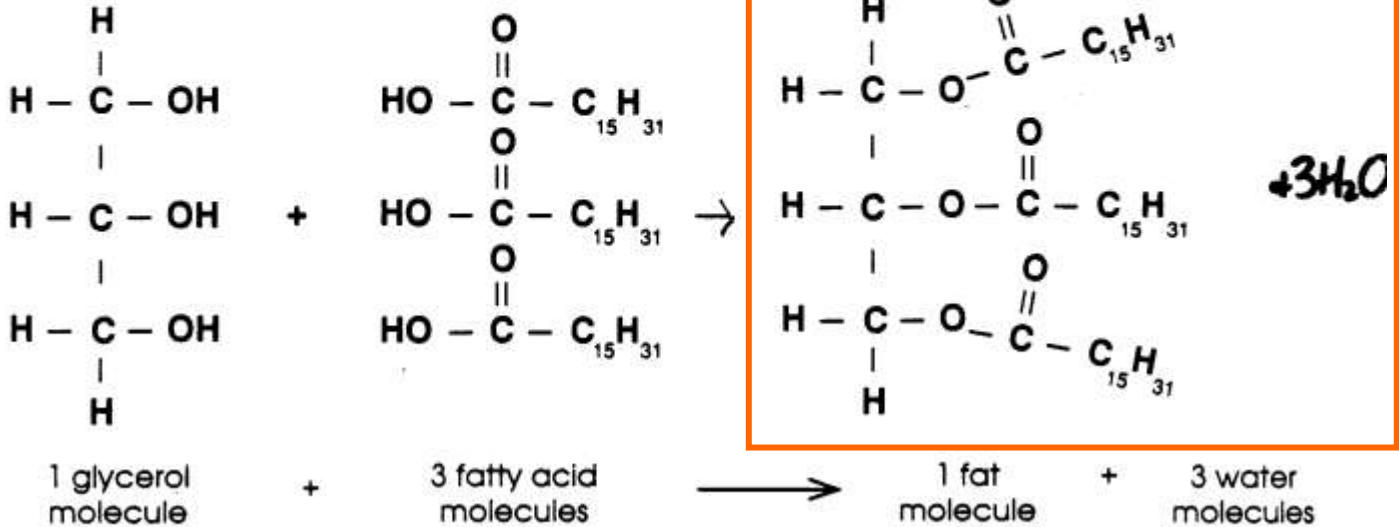


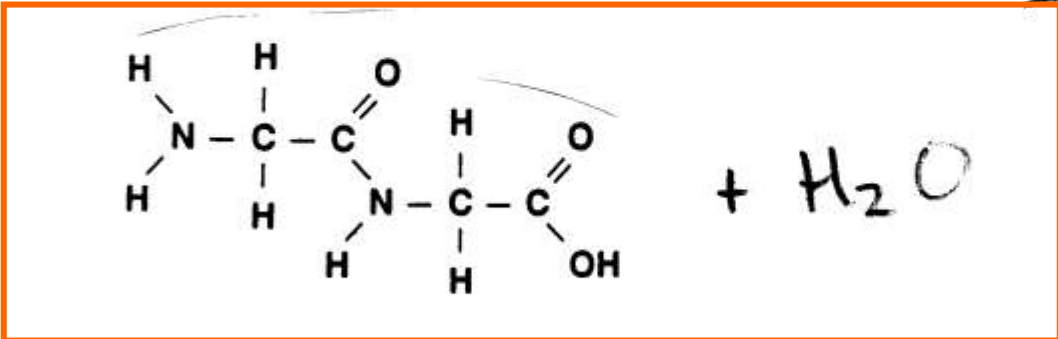
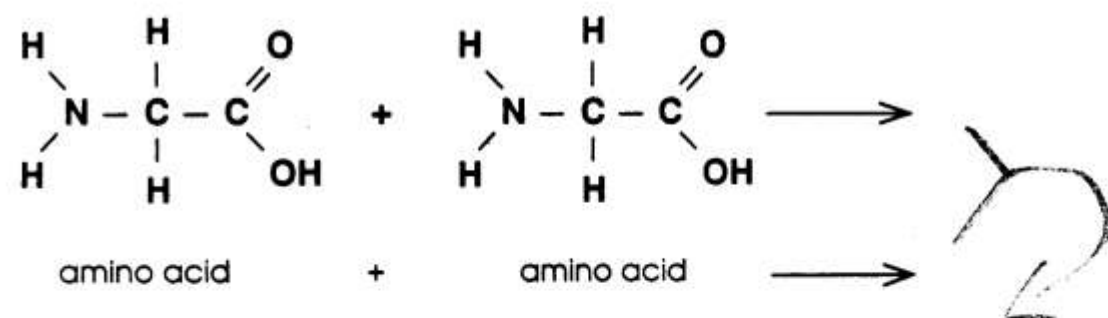
## DEHYDRATION SYNTHESIS

In the following two examples of dehydration synthesis, show how the removal of the water molecule(s) takes place by drawing a ring around the components of water. Then, draw the structural formula of each product.

### Synthesis of a Fat



### Formation of a Peptide Bond



dipeptide + water

# HYDROLYSIS

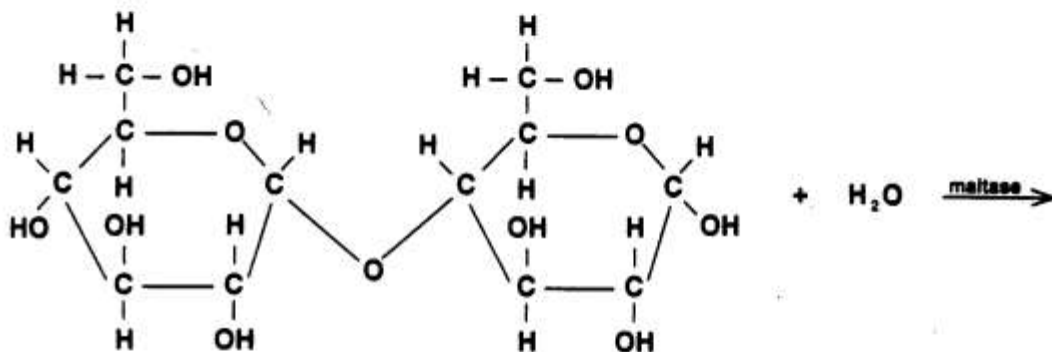
KEY

Name \_\_\_\_\_

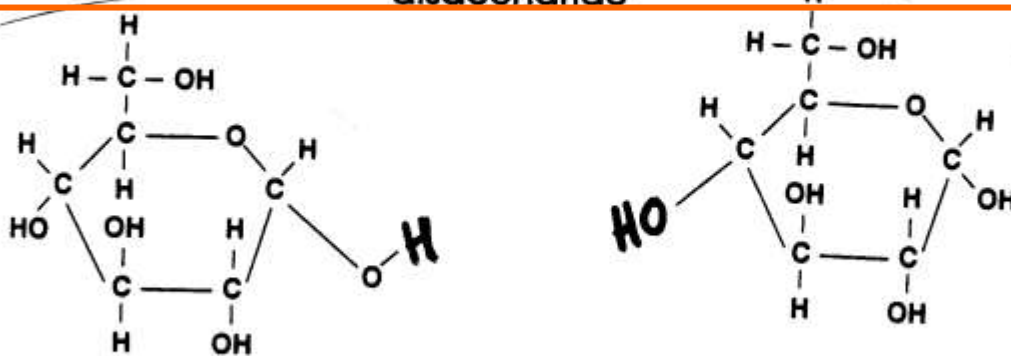
Hydrolysis is the opposite of a dehydration synthesis. A large molecule is broken down into two or more smaller molecules by the addition of water.

Draw the structural formulas of the expected products in the two following hydrolysis reactions.

## Breakdown of a Disaccharide to Monosaccharides

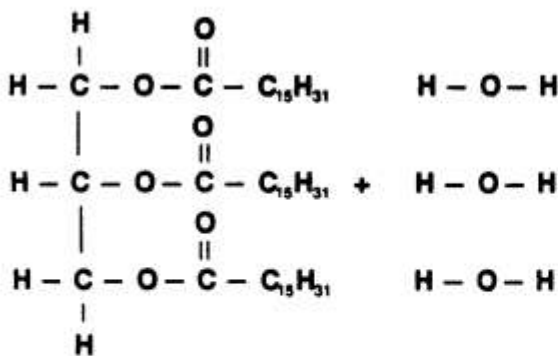


disaccharide



2 monosaccharides

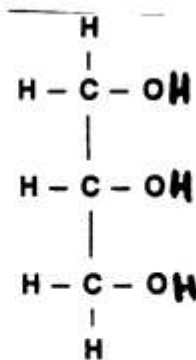
## Breakdown of a Lipid



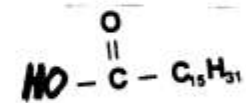
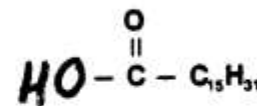
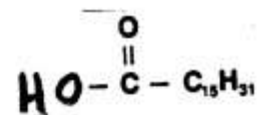
lipid

+ 3 water molecules

$\xrightarrow{\text{lipase}}$



glycerol



3 fatty acids