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

HYDROLYSIS

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