Chapter 3 Review

1. Hydrocarbons contain hydrogen atoms bound to carbon atoms.

2. Carbon atoms have four electrons always have covalent bonds between them.

3. What are the four most important biological molecules? Carbohydrates, Lipids, Proteins, Nucleic Acids

4. In dehydration synthesis water is removed and joins monomers to form polymers.

5. In hydrolysis reactions water is added and breaks polymers into monomers.

Carbohydrates
1. Carbohydrates are used for energy source such as the monosaccharide glucose.

2. Some monosaccharides such as deoxyribose and ribose are found in nucleotides of DNA and RNA.

3. The molecular formula for glucose is C6H12O6

4. Polysaccharides are energy source molecules. The most important one found in our body is glycogen, which consists of glucose subunits. Plants store glucose as starch or cellulose.

Lipids
1. Lipids are insoluble in water because they lack hydrophilic functional groups.

2. Triglycerides are composed of fatty acids and monoglycerides.

3. Where are triglycerides found? Fat