

BIOLOGICAL REACTIONS WORKSHEET

1. Identify each of the reactions as one of the types discussed in class. Be specific with redox rxns (ie. oxidation or reduction) and pay attention to the direction of arrows.

Reaction

Type

glucose + galactose \rightarrow lactose + water

$\text{H}_2 \leftarrow 2 \text{H}^+ + 2 \text{ electrons}$

pyruvate + $2\text{H}^+ + 2 \text{ electrons} \rightarrow$ lactate

$\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$

$\text{Cu} \rightarrow \text{Cu}^{2+} + 2 \text{ electrons}$

$\text{KOH} + \text{HF} \rightarrow \text{H}_2\text{O} + \text{KF}$

$\text{CO}_2 \rightarrow \text{C} + \text{O}_2$

$\text{CH}_3\text{COOCH}_3 + \text{H}_2\text{O} \rightarrow \text{CH}_3\text{COOH} + \text{CH}_3\text{OH}$

many glucoses \leftarrow glycogen + water

many amino acids \rightarrow polypeptide + water

2. Re-draw these rxns on the back of the sheet. Circle the atoms that react together. Draw the missing molecules and circle and name the linkages.

