

**SBI4U 2-2: Pyruvate Oxidation & Citric Acid Cycle Worksheet**

1. Glycolysis occurs in the \_\_\_\_\_ of the cell.
2. Glycolysis does/does not (circle the correct choice) require the presence of oxygen to occur.
3. Glycolysis starts with a single molecule of: \_\_\_\_\_
4. The first 3 reactions of glycolysis require the input of \_\_\_\_ molecules of ATP.
5. At the end of reaction 5 a total of \_\_\_\_\_ molecules of G3P have been produced.
6. Reactions 6-10 occur \_\_\_\_\_ times for each molecule of glucose.
7. Each molecule of G3P produces \_\_\_\_\_ NADH molecule(s) and \_\_\_\_\_ ATP molecule(s).
8. The final products of glycolysis are \_\_\_\_\_ molecules of \_\_\_\_\_, which are used as the initial reactant of the next step in cellular respiration.

Complete the following table for the process of glycolysis:

**Glycolysis Summary**

|  |               |
|--|---------------|
| <b>ATP molecules produced</b>                  |               |
| <b>ATP molecules consumed</b>                  |               |
| <b>Net ATP produced (produced - consumed)</b>  |               |
| <b>NADH produced</b>                           |               |
| <b>NADH consumed</b>                           |               |
| <b>Net NADH produced (produced - consumed)</b> |               |
| <b>Overall Energy Yield</b>                    | ATP:<br>NADH: |

