

Glycolysis Worksheet

1. Use the diagram in Question (a to j) to answer the following questions:
 - a. Label the diagram by filling in the box with the correct molecule.
 - b. What process is occurring in the diagram?

 - c. Which step(s) show the transfer of a phosphate from ATP to an intermediate?

 - d. Which step shows a reduction reaction?

 - e. Which steps are included in the energy-investment phase?

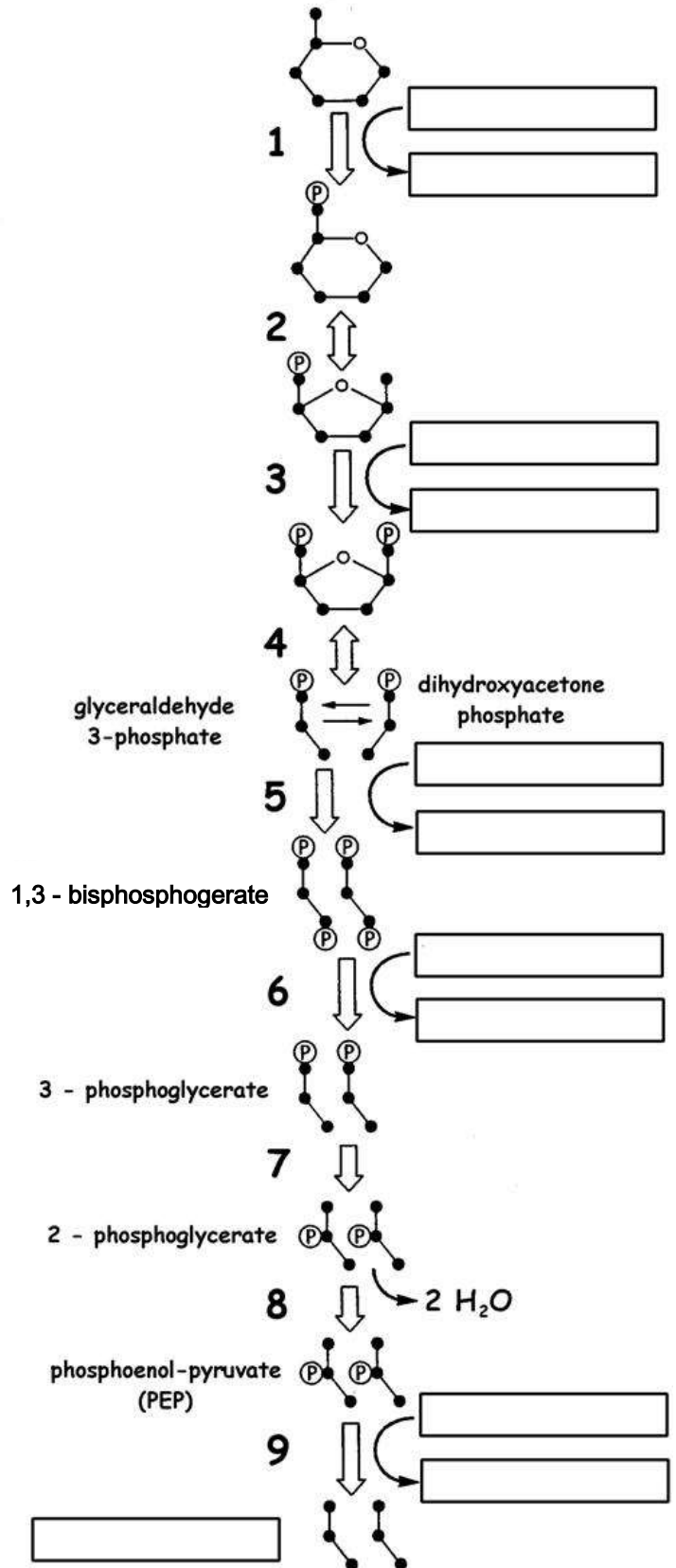
 - f. Which steps are included in the energy-yielding phase?

 - g. Which step shows the splitting of a 6-C compound into two 3-C compounds?

 - h. How many ATP molecules, per glucose, are used in this series of reactions?

 - i. How many NADH, per glucose, are produced?

 - j. How many ATP, per glucose, are produced?



2. Identify whether each of the following occurs during the energy-investment phase (**EI**) of glycolysis or the energy-yielding phase (**EY**).

_____ 2 glyceraldehyde phosphates are oxidized

_____ 2 NAD⁺ are reduced to 2 NADH

_____ Substrate-level phosphorylation occurs

_____ 2 ATP molecules are used

_____ Glucose & intermediate compounds are phosphorylated

_____ Fructose 1,6 bisphosphate split into two 3-C compounds