

NAME: _____

Quiz 3

The standard free energy change for converting fructose-1,6-bisphosphate (FBP) to dihydroxyacetone phosphate (DHAP) and glyceraldehyde-3-phosphate (GAP) is $5,450 \text{ calories mole}^{-1}$. This reaction is an important step of glycolysis in human cells. What is the minimum ratio of $[FBP]/([GAP][DHAP])$ that must be maintained for this reaction to occur? The human body is 310 K , and the gas constant is $1.99 \text{ calories K}^{-1} \text{ mole}^{-1}$.