1. Use the following reduction potentials to answer the following question:

\[
\begin{align*}
NAD^+ + 2e^- + H^+ & \rightarrow NADH \quad E^{\circ} = -0.315 \text{V} \\
\text{O}_2 + 2e^- + 2H^+ & \rightarrow H_2O \quad E^{\circ} = 0.815 \text{V}
\end{align*}
\]

Faraday constant = 100 kJ/mol*V

Calculate \( E^{\circ} \) and \( G^{\circ} \) for the following reaction:
\[\text{NADH} + \text{O}_2 + H^+ \rightarrow \text{NAD}^+ + H_2O\]

\[
\begin{align*}
E^{\circ} &= 0.815 \text{ V} - (-0.315 \text{ V}) = 1.13 \text{ V} \\
G^{\circ} &= -2 \times (100 \text{ kJ/mol*V}) \times (1.13 \text{ V}) = -226 \text{ kJ/mol}
\end{align*}
\]

2. Name the two enzymes of the glyoxylate cycle that are not found in the Citric Acid Cycle.

Citrate lyase
Malate Synthase