Approximate voltage regulator behavior

Linear Regulator
nominal output 5V,

Power dissipated in regulator
Approximate voltage regulator behavior

Boost Converter, nominal
Output 5V, $V_{IN} < V_{REG}$

Power dissipated in regulator
Approximate voltage regulator behavior

Buck Converter, nominal
Output 5V, $V_{IN} > V_{REG}$

Power dissipated in regulator