A. The Λ° has a quark composition of $sdu$

1. If you give the Λ° enough energy (for example from a photon or collision), an additional $d \bar{d}$ pair can form from the vacuum. Find two different sets of particles that could result from the five quarks (without allowing any change in the quark type by the weak force).
2. Show that these pairs automatically obey the conservation laws on $S$, $B$, (because you’re counting quarks).
3. For the proposed reactions in i), how much extra energy $Q$ does each reaction need?

Lightest baryons

Lightest mesons