Q1. Determine if the geometric series $\sum_{n=0}^{\infty}\left(\dfrac{5}{2^n}-\dfrac{1}{3^n}\right)$ diverges or converges. If it converges, find its sum.

Q2. Express $0.\overline{23}=0.232323\cdots$ as the ration of two integers.

Q3. Find a formula for the nth partial sum of the series $\displaystyle\sum_{n=1}^{\infty}\left(\frac{1}{n}-\frac{1}{n+1}\right)$