Q1. **Find the sum,** if the series is convergent, and **explain** if it is divergent.

$i.$ $\sum \sqrt[n]{n}$

$ii.$ $\sum_{n=0}^{\infty} \dfrac{3^{n+1}}{2^{2n-1}}$

$iii.$ $\sum (e^{\frac{1}{n+1}} - e^{\frac{1}{n}})$