$= m \cdot \frac{1}{2m} = \frac{1}{2} > 0.4 = \varepsilon$, which is

Contradiction,

Hence $\sum u_n = 1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \cdots + \frac{1}{n} + \cdots \infty$

diverges