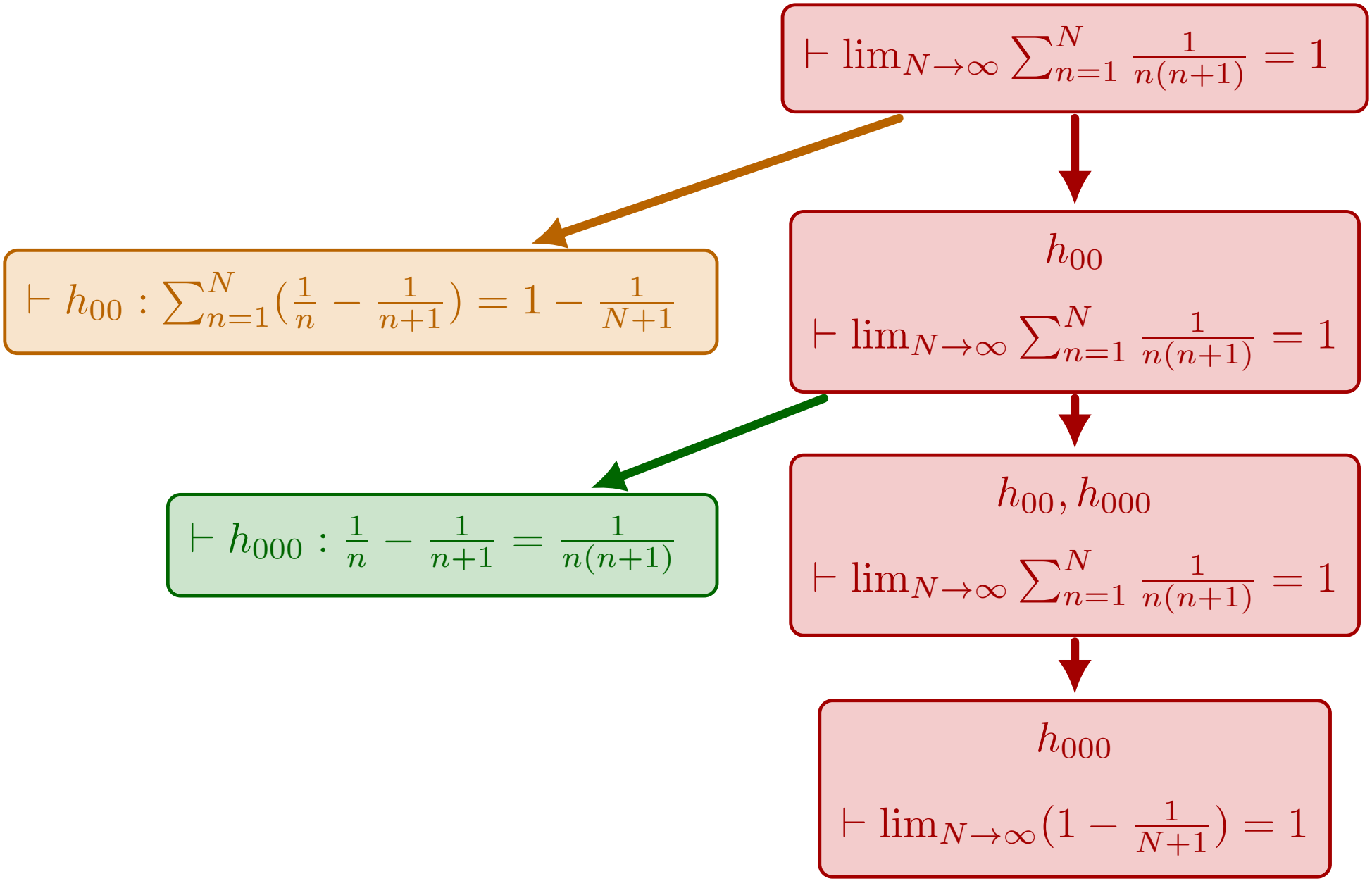
$\vdash \lim_{N\to\infty} \sum_{n=1}^{N} \frac{1}{n(n+1)} = 1$
$\vdash h_{00} : \sum_{n=1}^{N} (\frac{1}{n} - \frac{1}{n+1}) = 1 - \frac{1}{N+1}$
h_{00}
$\vdash \lim_{N\to\infty} \sum_{n=1}^{N} \frac{1}{n(n+1)} = 1$
$\vdash h_{000} : \frac{1}{n} - \frac{1}{n+1} = \frac{1}{n(n+1)}$
h_{00}, h_{000}
$\vdash \lim_{N\to\infty} \sum_{n=1}^{N} \frac{1}{n(n+1)} = 1$
h_{000}
$\vdash \lim_{N\to\infty} (1 - \frac{1}{N+1}) = 1$