We have

$$\sum n^{\underline{-1}}\,\delta n = H_n = 1 + \frac{1}{2} + \cdots + \frac{1}{n}.$$

Indeed,

$$\Delta H_n = H_{n+1} - H_n = \frac{1}{n+1} = n^{\underline{-1}}.$$

Thus, the antidifference of $n^{\underline{-1}}$ is H_n.