



$$\begin{aligned} & \frac{1}{d} \left(\frac{d}{a_1 a_2} + \frac{d}{a_2 a_3} + \dots + \frac{d}{a_{n-1} a_n} \right) \\ &= \frac{1}{d} \left(\frac{a_2 - a_1}{a_1 a_2} + \frac{a_3 - a_2}{a_2 a_3} + \dots + \frac{a_n - a_{n-1}}{a_{n-1} a_n} \right) \\ &= \frac{1}{d} \left(\frac{1}{a_1} - \frac{1}{a_2} + \frac{1}{a_2} - \frac{1}{a_3} + \dots + \frac{1}{a_{n-1}} - \frac{1}{a_n} \right) \\ &= \frac{1}{d} \left(\frac{1}{a_1} - \frac{1}{a_n} \right) = \frac{n-1}{a_1 a_n} \end{aligned}$$