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$$\textcircled{1} \quad d = \log \frac{x}{y^{n+1}} - \log \frac{x}{y^{n-2}} = \log \frac{\frac{x}{y^{n+1}}}{\frac{x}{y^{n-2}}} = \log \frac{1}{y} \rightarrow \text{रिप्ट}$$

$$\textcircled{2} \quad d = \log \frac{1}{3} = \log 3^{-1} = -\log 3$$

$$a_1 = \log 270$$

$$S_7 = \frac{7}{2} [2 \log 270 - \log 3(7-1)] = \frac{7}{2} [\log 270^2 - \log 3^6]$$

$$= \frac{7}{2} [\log (27 \cdot 10)^2 - \log 3^6] = \frac{7}{2} [\log 27^2 + \log 10^2 - 6 \log 3] =$$

$$= \frac{7}{2} [\log 3^6 + 2 - 6 \log 3] = \frac{7}{2} \cdot 2 = 7$$