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Geometric Series Test

Series: $\sum_{n=0}^{\infty} ar^n$

Condition of Convergence:

$$|r| < 1$$

$$\text{Sum: } S = \lim_{n \rightarrow \infty} \frac{a(1-r^n)}{1-r} = \frac{a}{1-r}$$

Condition of Divergence:

$$|r| \geq 1$$

GEOMETRIC SERIES

Does $a_n = ar^{n-1}$, $n \geq 1$? — YES

