$\sum_{n=1}^{\infty} \frac{7^n}{(-6)^{n-1}} = \sum_{n=1}^{\infty} \frac{7(7)^{n-1}}{(-6)^{n-1}} = 7 \sum_{n=1}^{\infty} \left(-\frac{7}{6}\right)^{n-1}$. The latter series is geometric with $a = 7$ and ratio $r = -\frac{7}{6}$. Since $|r| = \frac{7}{6} > 1$, the series diverges.