Suppose that the function $f : \mathbb{R} \to \mathbb{R}$ satisfies the inequality

$$\left| \sum_{k=1}^{n} 3^k (f(x + ky) - f(x - ky)) \right| \leq 1$$

for every positive integer n and for all $x, y \in \mathbb{R}$. Prove that f is a constant function.