$$\Rightarrow f(z) = \log \frac{2+z}{2-z} = \sum_{n=0}^{\infty} \frac{f^{n)}(0)}{n!}(z-0)^n = \log 1 + \sum_{\substack{n=1 \\ n \text{ impar}}}^{\infty} \frac{(n-1)!}{2^{n-1}} \frac{1}{n!} z^n =$$

$$= \log 1 + 2\sum_{\substack{n=1 \\ n \text{ impar}}}^{\infty} \left(\frac{z}{2}\right)^n \frac{1}{n} = \log 1 + 2 \sum_{n=0}^{\infty} \left(\frac{z}{2}\right)^{2n+1} \frac{1}{2n+1} \qquad \forall z \in D(0,R)$$

con $R<2$