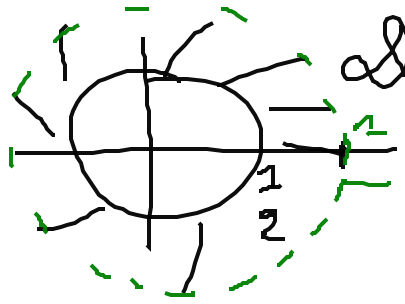
$$G_2(z) = \sum_{n=0}^{\infty} g_2(n) z^{-n}$$

↑ filtre causal $g_2(n) = 0$ $n<0$

$$G_2(z) = \frac{1}{2} \sum_{n=0}^{\infty} \frac{1}{2^n} z^{-n} = \frac{1}{2} \sum_{n=0}^{\infty} \underbrace{\left(2^{-1}z^{-1}\right)^n}_{r = 2z^{-1}}$$

- convergence $\lim_{n\to\infty} \left|(2^{-1}z^{-1})^n\right|^{1/n} = \left|2^{-1}z^{-1}\right| < 1$

$|z| > 1/2$.



$\mathcal{D}$.

TF existe $|z|=1 \in \mathcal{D}$.

$$\underline{G_2(z)} = \frac{1}{2} \cdot 1 \cdot \frac{1}{1 - 2^{-1}z^{-1}} = \boxed{\frac{1}{2} \quad \frac{1}{1 - \frac{z^{-1}}{2}}}$$