

3⁻ methode $\begin{cases} x(0) = \delta(0) = 1 \\ x(n) = 0 \quad n > 0 \end{cases}$

$n=0$ $g_2(0) = y(0) = \frac{1}{2} x(0) + \frac{1}{2} y(x^1)$

$g_2(0) = y(0) = \frac{1}{2}$

$n=1$ $g_2(1) = y(1) = \frac{1}{2} x(1) + \frac{1}{2} y(0)$
 $= \frac{1}{2} \times \frac{1}{2} = \frac{1}{2^2}$

$n=2$ $g_2(2) = y(2) = \frac{1}{2} x(2) + \frac{1}{2} y(1)$
 $= \frac{1}{2^3} = \frac{1}{2} \cdot \frac{1}{2^2}$

$g_2(n) = \frac{1}{2} \cdot \frac{1}{2^n}$ \rightarrow Rep imp infinie
 \rightarrow R I I



$\rightarrow \lim_{n \rightarrow \infty} g_2(n) = 0$
stabile