Si $X(z) = \sum_{k=-\infty}^{+\infty} x_k z^{-k}$.

$$= \sum_{k=-\infty}^{-1} x_k z^{-k} + \sum_{k=0}^{\infty} x_k z^{-k}$$

$$= \sum_{k=1}^{\infty} x_{-k} z^{k} + \sum_{k=0}^{\infty} x_k z^{-k}.$$

Cauchy $\rightarrow \lim_{k \to \infty} |x_{-k} z^k|^{1/k} < 1 \Rightarrow z < z_0$

et $\rightarrow \lim_{k \to \infty} |x_k z^{-k}|^{1/k} < 1 \Rightarrow z > z_1$

Domaine de convergence $\mathcal{D}$.

$$z_0 < z < z_1$$

<u>Remarque</u> $z = e^{2\pi j f}$ $|z| = 1 \subset \mathcal{D}$.