Es: $M = F(2,4)$ · $\xi \in M$ con $\exp \geq 4 \Rightarrow \xi \in \mathbb{Z}$

· determ $\max \{ \xi \in M \mid \xi > 0 \text{ e } \xi \notin \mathbb{Z} \}$

(Sol: ...)

Es: $M = F(10,3)$; determ $\{ \xi \in M \mid \xi \oplus 1 > 1 \}$

(Sol: ...)

Oss: ① $f: \mathbb{R} \to \mathbb{R}$, $\varphi: M \to M$, $\xi \in M$

"φ stabile in ξ" significa: $\varepsilon_a = \dfrac{\varphi(\xi) - f(\xi)}{f(\xi)}$ piccolo

ovvero: $\exists\, \varepsilon_a$ piccolo t.c. $\boxed{\varphi(\xi) = (1+\varepsilon_a) f(\xi)}$

② $f: \mathbb{R} \to \mathbb{R}$, $x \in \mathbb{R}$

"calcolo di f ben condiz in x" significa:

$$\varepsilon_d = \frac{f((1+\varepsilon)x) - f(x)}{f(x)} \quad \text{piccolo } \forall\, \varepsilon \text{ piccolo}$$

ovvero: $\forall \varepsilon$ piccolo $\exists\, \varepsilon_d$ piccolo t.c. $\boxed{f((1+\varepsilon)x) = (1+\varepsilon_d) f(x)}$

③ $f: \mathbb{R} \to \mathbb{R}$, $\varphi: M \to M$ t.c. φ stabile $\forall \xi$

$g: \mathbb{R} \to \mathbb{R}$, $\gamma: M \to M$ t.c. γ stabile $\forall \xi$

si utilizza $\varphi \circ \gamma$ per capire se $f \circ g$ ... è stabile?

$$\varphi(\gamma(\xi)) = \varphi((1+\varepsilon_{1,a}) g(\xi)) =$$

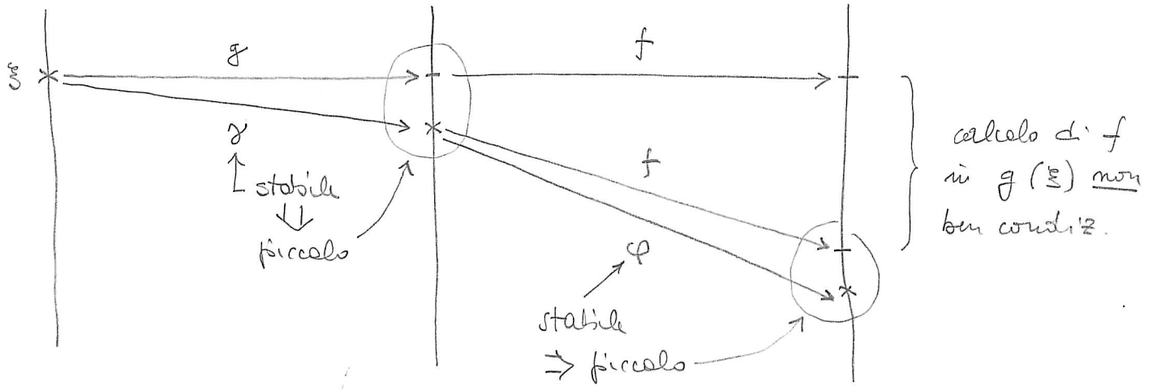
└ piccolo perché γ stabile

$$= (1+\varepsilon_{2,a}) f((1+\varepsilon_{1,a}) g(\xi))$$

└ piccolo perché φ stabile

$$= (1+\varepsilon_{2,a})(1+\varepsilon_{2,d}) f(g(\xi))$$

└ = valore della f di condiz d' f in $g(\xi)$, $\varepsilon_{1,a}$

$\Rightarrow$ $\varphi \circ \gamma$ stabile in ξ se il calcolo di f è ben condizionato in $g(\xi)$.

Graficamente: