

5

$$f(x) = h[g(x)]$$

$h(t)$ è monotona decrescente $\Rightarrow h'(t) \leq 0 \quad \forall x \in \mathbb{R}$

$$f'(x) = h'(t) t' \quad (\text{derivata delle funzioni composte}) \quad [g(x) = t]$$

$$f'(x) = h'(t) g'(x)$$

↓

$$\text{ma } h'(t) \leq 0 \quad \forall x \in \mathbb{R}$$

⇓

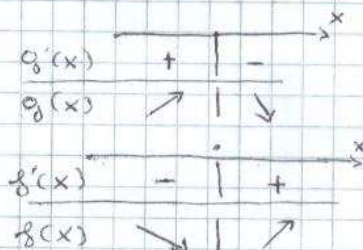
$$\text{se } g'(x) \geq 0 \quad \Rightarrow \quad f'(x) \leq 0$$

$$\text{se } g'(x) \leq 0 \quad \Rightarrow \quad f'(x) \geq 0$$

⇓

dove $g(x)$ avrà MAX

$f(x)$ avrà min



e viceversa