

TEOREMA 1. - ("PONTE" PER FUNZIONI CONTINUE)

$$f \text{ CONTINUA in } x_0 \iff \left[ \begin{array}{l} \forall \{x_m\}_{m \in \mathbb{N}} : x_m \in A \text{ e } \lim x_m = x_0 \\ \text{RISULTA } \lim f(x_m) = f(x_0) \end{array} \right]$$

DIM.

OVVIA CONSEGUENZA DEL TEOREMA "PONTE"

□

TEOREMA 2. - (DELLA PERMANENZA DEL SEGNO)

$$\left[ \begin{array}{l} \text{i) } f \text{ CONTINUA in } x_0 \\ \text{ii) } f(x_0) > 0 \end{array} \right] \Rightarrow \exists I(x_0) : \forall x \in A \cap I, f(x) > 0$$

DIM.

OVVIA

□

TEOREMA 3. -

$$f; g \text{ CONTINUE in } x_0 \Rightarrow f \pm g; fg; \frac{f}{g} \text{ SE } g \neq 0; \text{ CONTINUE in } x_0$$

□

TEOREMA 4. -

$$\left[ \begin{array}{l} \text{i) } f \text{ CONT. in } x_0 \\ \text{ii) } g \text{ CONT. in } y_0 = f(x_0) \end{array} \right] \Rightarrow g(f(x)) \text{ CONT. in } x_0$$

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