

LA FUNZIONE $y = f(x)^{g(x)}$

$$y = f(x)^{g(x)} \Leftrightarrow y = e^{\ln f(x) g(x)}$$

$$\Leftrightarrow y = e^{g(x) \ln f(x)}$$

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$$D_y = \left\{ x \in \mathbb{R} / f(x) > 0 \right\}$$

ESEMPIO

$$y = (2x+1)^{(x+3)} \quad y = e^{(x+3) \ln(2x+1)}$$

$$\begin{aligned} D_y &= \left\{ x \in \mathbb{R} / 2x+1 > 0 \right\} = \\ &= \left\{ x \in \mathbb{R} / x > -\frac{1}{2} \right\} = \left(-\frac{1}{2} ; +\infty \right) \end{aligned}$$