

$$\lim_{x \rightarrow \infty} x^2 - 2x \sin x + 1$$

$$-1 \leq \sin x \leq 1$$

ma per $x > 0 \Rightarrow$

$$-2x \leq -2x \sin x \leq 2x$$

$$x^2 - 2x + 1 \leq x^2 - 2x \sin x + 1$$

molte

$$\lim_{x \rightarrow \infty} x^2 - 2x + 1 = \infty$$

quindi

$$\lim_{x \rightarrow \infty} x^2 - 2x \sin x + 1 = \infty$$