

$$\lim_{x \rightarrow 0} \frac{\sqrt{x+4} - 2}{x - x^2} = \frac{0}{0} \text{ (INDETERMINACIÓN)}$$

(Note: In the original image, $\sqrt{x+4} - 2$ is labeled $f(x)$ and $x - x^2$ is labeled $g(x)$ in red.)

MÉTODO L'HOPITAL $\lim_{x \rightarrow 0} \frac{f'(x)}{g'(x)}$

$$\rightarrow \lim_{x \rightarrow 0} \frac{\frac{1}{2\sqrt{x+4}}}{1-2x} = \frac{\frac{1}{4}}{1} = \boxed{\frac{1}{4}}$$