**EJERCICIO 1** (2.5 puntos)

Calcula $a$ y $b$ sabiendo que $\lim_{x\to 0} \frac{a(1-\cos(x)) + b\,\mathrm{sen}(x) - 2(e^x - 1)}{x^2} = 7.$

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$$\lim_{x\to 0} \frac{a(1-\cos 0) + b(\mathrm{sen}\,0) - 2(e^0 - 1)}{0^2} = \left[\frac{0}{0}\right] \xrightarrow{L'H} \lim_{x\to 0} \frac{a(\mathrm{sen}\,x) + b\cos x - 2\cdot(e^x)}{2x} =$$

$$= \frac{b-2}{0} = \left[\frac{0}{0}\right] \xrightarrow{L'H} \lim_{x\to 0} \frac{a\cos x \cdot 2\mathrm{sen}\,x - 2\cdot e^x}{2} = \frac{a-2}{2} = 7$$

$b - 2 = 0 \rightarrow \boxed{b = 2}$

$a - 2 = 14 \rightarrow \boxed{a = 16}$