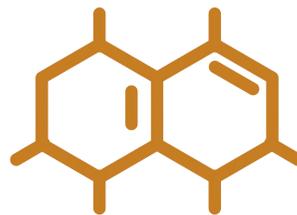


$\left[\frac{\infty}{\infty} \right]$ Regla de los grados



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$\left[\lim_{x \rightarrow \infty} \frac{P(x)}{Q(x)} = \frac{\infty}{\infty} \right] \rightarrow \underline{\underline{3 \text{ CASOS}}}$
indet.

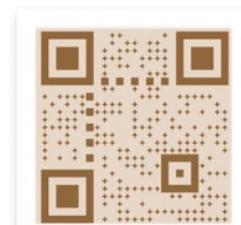
CASO I : grado $P(x) >$ grado $Q(x)$

Por la regla de los grados $\rightarrow +\infty$ ojo con los signos

a) $\lim_{x \rightarrow \infty} \frac{x^3 - 3}{7x - 2} = \left[\frac{\infty}{\infty} \right] \text{indet.}$

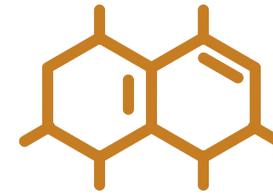
b) $\lim_{x \rightarrow \infty} \frac{x^3 - 3}{-7x - 2} = \left[\frac{\infty}{-\infty} \right] \text{indet.}$

c) $\lim_{x \rightarrow -\infty} \frac{x^3 - 3}{7x^2 - 2} = \frac{(-\infty)^3 - 3}{7 \cdot (-\infty)^2 - 2} = \left[\frac{-\infty}{+\infty} \right] \text{indet.}$



CASO II: $\text{grado } P(x) < \text{grado } Q(x)$

$$\lim_{x \rightarrow \infty} \frac{3 - 2x}{x^2 + 1} = \left[\frac{-\infty}{+\infty} \right]_{\text{indet.}}^{\text{grados}} \rightarrow = 0 //$$



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CASO III: $\text{grado } P(x) = \text{grado } Q(x)$

$$\lim_{x \rightarrow \infty} \frac{2x^3 + 3x + 2}{5x^3 + 7} = \left[\frac{\infty}{\infty} \right]_{\text{indet.}}^{\text{grados}} \rightarrow = \frac{2}{5} //$$

