Teoremas / Prop.

Solo en Num

① $\lim_{x \to a} b = b$ ← Cualquier Num

$\lim_{x \to 0} 5 = 5$

$\lim_{x \to 8} 5 = 5$

Literal "x"

② $\lim_{x \to c} x = c$

$\lim_{x \to 8} x = 8$

$\lim_{f \to 1} f = 1$

$\lim_{f \to 2} x = \not{\exists}$ NO se puede

③ $\lim_{x \to c} x^n = c^n$ (Solo x^n)

$\lim_{x \to 2} x^2 = 2^2 = 4$

$\lim_{x \to 1} x^7 = 1^7 = 1$

Limites de funciones polinomicas y racionales

④ $\lim_{x \to c} P(x) = P(c)$

$\lim_{x \to 2} (x^2+2) = 6$; $P(x) = x^2+2$; $P(2) = (2)^2+2$

$\lim_{x \to 2} 3x^2 - 2x^2 + 4 = x^2 + 4 = 8$

$\lim_{x \to -3} \frac{2}{x+2} = -2$

⑤ $\lim_{x \to c} \sqrt[n]{x} = \sqrt[n]{c}$

$\lim_{x \to 9} \sqrt{x} = \sqrt{9} = 3$

$\lim_{x \to 121} \sqrt[11]{x} = \sqrt[11]{121} = 1.54$

Sean b,c numeros reales, n un numero entero positivo ,h,f,g funciones con los siguientes limites:

$\lim_{x \to c} f(x) = L$, $\lim_{x \to c} g(x) = k$

⑥ $\lim_{x \to c} [b f(x)] = bL$

$\lim_{x \to 2} [2 \cdot (x^2+1)] = 2 \cdot 5 = 10$

$\lim_{x \to 5} [3 \cdot (x^2)] = 3 \cdot 25 = 75$

⑦ $\lim_{x \to c} [f(x) \pm g(x)] = L \pm k$

$\lim_{x \to 2} [(x^2) + (x)] = 4 + 2 = 6$

⑧ $\lim_{x \to c} [f(x) * g(x)] = L * k$

$\lim_{x \to 2} [(x^2) * (x)] = 4 * 2 = 8$

⑨ $\lim_{x \to c} \frac{f(x)}{g(x)} = \frac{L}{k}$

$\lim_{x \to 2} \frac{x^4}{x} = \frac{(2)^4}{(2)} = \frac{16}{2} = 8$

⑩ $\lim_{x \to c} [f(x)]^n = L^n$

$\lim_{x \to 3} [x^2+1]^2 = [(3)^2+1]^2 = [10]^2 = 100$