



UNIVERSIDAD DEL SURESTE

Campus Comitán

PASIÓN POR EDUCAR

Licenciatura de Medicina Humana


Nombre de la actividad: Poniendo Límites
Materia: Biomatemáticas

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Grado: 2° Grupo: C

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Poniendo Límites

Ejercicios:

$$\lim x^2$$

$$x \rightarrow 2.5$$

$$\lim x^2 (2.5) = \underline{6.25}$$

$$\lim x^2$$

$$x \rightarrow 1.5$$

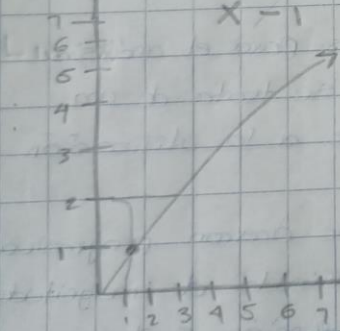
$$\lim x^2 (1.5)^2 = \underline{2.25}$$

$$\lim x^2 =$$

$$x \rightarrow 3$$

$$\lim x^2 (3)^2 = \underline{9}$$

$$\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = \frac{(x-1)(x+1)}{x-1} = (x+1) = (1+1) = \underline{2}$$



Lim x^2

$$pH(x) \rightarrow 7.2 = \underline{51.1}$$

$$pH(x) \rightarrow 7.4 = \underline{54.76}$$

$$pH(x) \rightarrow 7.6 = \underline{438.97}$$

$$pH(x) \rightarrow (7.5)(7.5) = \underline{51.5}$$

Ejercicio

pH 6

$$\lim_{\text{pH } x \rightarrow 6.6} x^2 = \lim x^2 = (6.6)^2 = 43.56$$

$$\lim_{\text{pH } (x) \rightarrow 7.6} x^3 = \lim x^3 = (7.6)^3 = 438.97$$

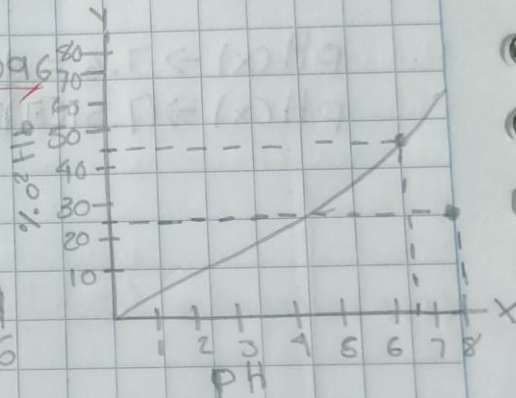
$$\lim_{\text{pH } (x) \rightarrow 7.8} x^3 = \lim x^3 = (7.8)^3 = 474.55$$

$$\lim_{\text{pH } (x) \rightarrow 8} x^4 = \lim x^4 = (8)^4 = 4096$$

$$\lim_{\text{pH } x \rightarrow 8} x^4 = (8)^4 = 4096$$

$$\text{pH} = 8 \rightarrow 100\%$$

$$2 \rightarrow 25\%$$



$$\lim_{\text{pH } x \rightarrow 7.6} x^3 = (7.6)^3 = 435$$

$$435 \div 5 = 87$$

$$= 4 \rightarrow 100\%$$

\rightarrow

BIOMATEMATICAS II

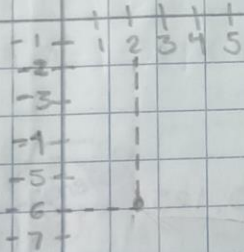
20-Febrero-2022

$$1. \lim_{x \rightarrow 2} \frac{4x+2}{3x-2x} = \frac{4(2)+2(2)}{3(2)-2(2)} = \frac{12}{2} = \boxed{6}$$

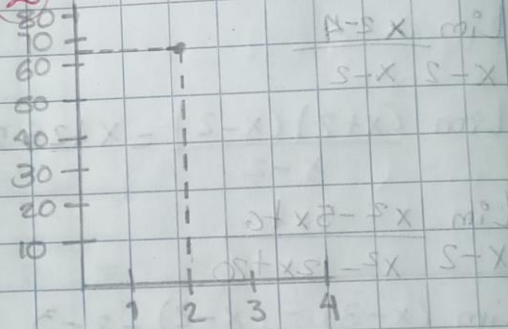
$$\lim_{x \rightarrow 2} [2x]^3 = (2(2))^3 = (4)^3 = \boxed{64}$$

$$\lim_{x \rightarrow 6} \sqrt{2x} = \sqrt{2(6)} = \sqrt{12} = \boxed{3.4}$$

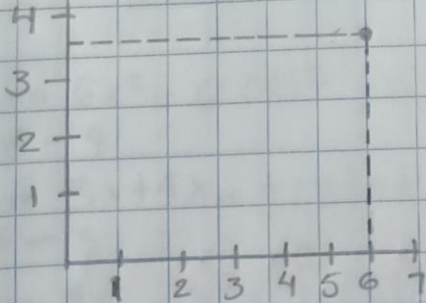
①



②



③



Tarea (Factorización)

$$\lim_{x \rightarrow 2} \frac{x^2 + 7x - 6}{x - 2}$$

$$\lim_{x \rightarrow 2} \frac{(x+3)(x-2)}{x-2} = \lim_{x \rightarrow 2} x+3 = 2+3 = \underline{5}$$

$$\lim_{x \rightarrow 2} \frac{x^2 + 5x + 4}{x^2 + 3x - 4}$$

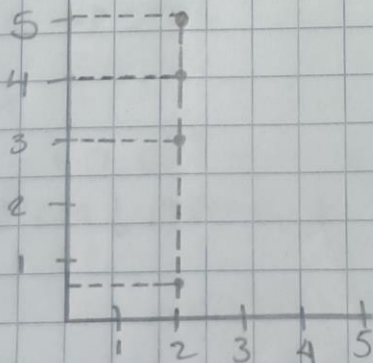
$$\lim_{x \rightarrow 2} \frac{(x+4)(x+1)}{(x+4)(x-1)} = \frac{2+1}{2-1} = \frac{3}{1} = \underline{3}$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}$$

$$\lim_{x \rightarrow 2} \frac{(x+2)(x-2)}{x-2} = x+2 = 2+2 = \underline{4}$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 5x + 6}{x^2 - 12x + 20}$$

$$\lim_{x \rightarrow 2} \frac{(x-3)(x-2)}{(x-10)(x-2)} = \frac{2-3}{2-10} = \frac{-1}{-8} = \underline{0.125}$$



TAREA:

Matemáticas ☺

$$\lim_{x \rightarrow 2} \frac{x^2 + x - 6}{x - 2} =$$

$$\lim_{x \rightarrow 2} \frac{x^2 + 5x + 4}{x^2 + 3x - 4} =$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2} =$$

Propiedades de los límites

$$\lim_{x \rightarrow a} c = c \quad \lim_{x \rightarrow 3} 5 = 5$$

$$\lim_{x \rightarrow a} x = a \quad \lim_{x \rightarrow 3} x = 3$$

$$\lim_{x \rightarrow a} x^n = a^n \quad \lim_{x \rightarrow 3} x^2 = (3)^2 = 9$$

$$\lim_{x \rightarrow a} \sqrt[n]{x} = \sqrt[n]{a} \quad \lim_{x \rightarrow 2} \sqrt{2} = 1.41$$

$$\lim_{x \rightarrow 2} 4x^2 = 4(2)^2 = 4(4) = 16$$

$$\lim_{x \rightarrow 2} 3x^3 = 3(2)^3 = 3(8) = 24$$

$$\lim_{x \rightarrow 4} 6x^2 = 6(4)^2 = 6(16) = 96$$

$$\lim_{x \rightarrow 3} 3x + 4x = 3(3) + 4(3) = 9 + 12 = 21$$

$$\lim_{x \rightarrow 2} 4x^2 \cdot 3x^2 = 4(2)^2 \cdot 3(2)^2 = 4(4) \cdot 3(4) = 16 \cdot 12 = 192$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 2}{x^3} = \frac{\lim_{x \rightarrow 2} x^2}{\lim_{x \rightarrow 2} x^3}$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 2}{x^3 + 3} = \frac{-2(\lim_{x \rightarrow 2} x^2)}{3(\lim_{x \rightarrow 2} x^3)} = \frac{-2(2)^2}{3(2)^3} = \frac{-2(4)}{3(8)} = \frac{-8}{24} = -0.333$$

PH6 & satoshb? K.C ← formula

PH9

PH5.5 $\lim_{x \rightarrow 6} x = 6(6) = 36$

$\lim_{x \rightarrow 9} x = 9(9) = 81$

$\lim_{x \rightarrow 5.5} x = 5.5(5.5) = 30.25$

$$d = (A) \cdot A = (s)A = s_x \text{ mi } A \text{ (s) } (A) \text{ mi}$$

Límites en matemáticas

Una magnitud a la que se acercan progresivamente los términos de una secuencia infinita de magnitudes es decir expresa las tendencias.

Formula $\rightarrow \lim_{x \rightarrow a} f(x) = L$

$$\lim_{x \rightarrow 2} x^2 = \lim_{x \rightarrow 2} x^2 = (2)^2 = 4$$

$$\lim_{x \rightarrow 2.5} x^2 = \lim_{x \rightarrow 2.5} x^2 = (2.5)^2 = 6.25 //$$

$$\lim_{x \rightarrow 1.5} x^2 = \lim_{x \rightarrow 1.5} x^2 = (1.5)^2 = 2.25 //$$

$$\lim_{x \rightarrow 3} x^2 = \lim_{x \rightarrow 3} x^2 = \frac{(x+1)(x-1)}{x-1} = (x+1) = (1+1) = 2 //$$

$$\lim_{pH(x) \rightarrow 7.2} x^2 = \lim_{x \rightarrow 7.2} x^2 = (7.2)^2 = 51.84 //$$

$$\lim_{pH(x) \rightarrow 7.4} x^2 = \lim_{x \rightarrow 7.4} x^2 = (7.4)^2 = 54.76 //$$

$$\lim_{pH(x) \rightarrow 7.6} x^2 = \lim_{x \rightarrow 7.6} x^2 = (7.6)^2 = 57.76 //$$

$$\lim x^2 = \lim x^2 = (6.6)^2 = 43.56$$

$$PH(x) \rightarrow 6.6$$

$$\lim x^3 = \lim x^3 = (7.6)^3 = 438.92$$

$$PH(x) \rightarrow 7.6$$

$$\lim x^3 = \lim x^3 = (7.8)^3 = 474.55$$

$$PH(x) \rightarrow 7.8$$

$$\lim x^4 = \lim x^4 = (8)^4 = 4,096$$

$$PH(x) \rightarrow 8$$

MCM

