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Nombre del trabajo: “Poniendo límites”

Materia: Biomatemáticas

Grado: 2

Grupo: A

Comitán de Domínguez Chiapas a 20 de febrero de 2022.

08/02/22

EJEM. EJERCICIOS EN CLASE

$\lim_{x \to 2.5} x^2$

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

$\lim_{x \to 1.5} x^2$

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

$\lim_{x \to 3} x^2$

$\lim_{x \to 3} (3)^2 = 9$

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

$\lim_{PH \to 7.2} x^2$

$\lim_{PH \to 7.2} (7.2)^2 = 51.84$

$\lim_{PH \to 7.4} x^2$

$\lim_{PH \to 7.4} (7.4)^2 = 54.76$

$\lim_{PH \to 7.6} x^2$

$\lim_{PH \to 7.6} (7.6)^2 = 57.76$

PH $8 \xrightarrow{\div 2} 100\%$

$2 \xrightarrow{\div 4} = 25\%$

TAREA

08/20/22

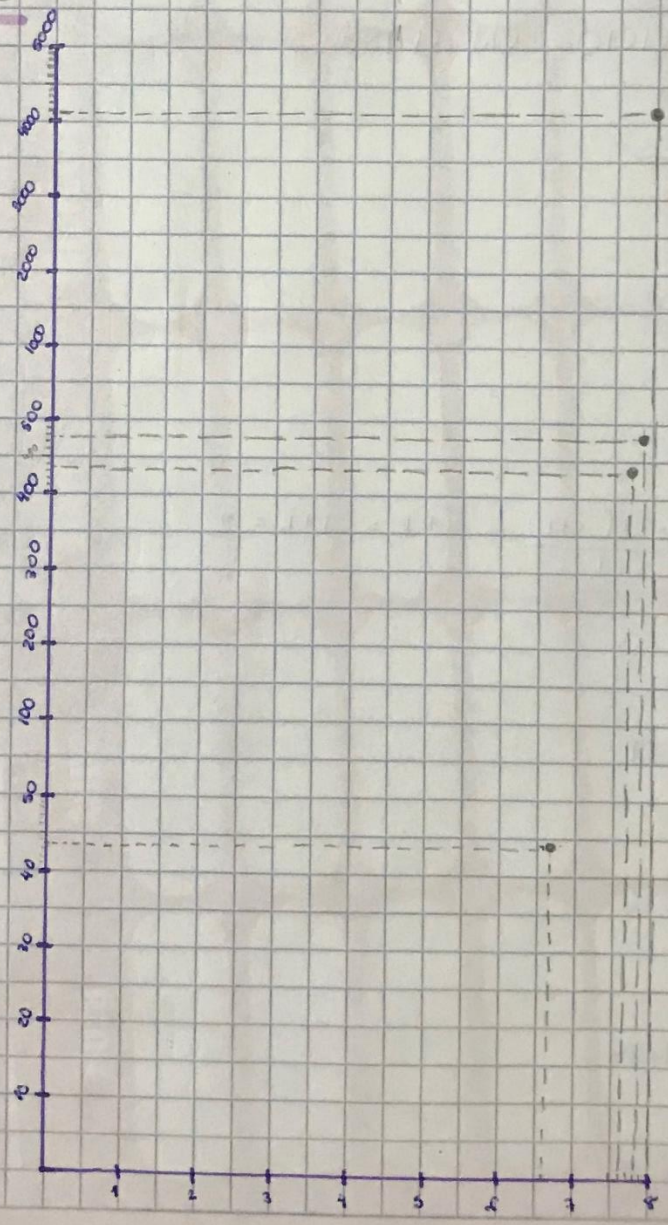
Lim x^4
PH → 6.6
Lim $(6.6)^2$ = 43.56

Lim x^5
PH → 7.6
Lim $(7.6)^3$ = 438.976

Lim x^3
PH → 7.8
Lim $(7.8)^3$ = 474.552

Lim x^4
PH → 8
Lim $(8)^4$ = 4096

4096	8
512	4
128	2
64	2
32	2
16	2
8	2
4	2
2	2
1	



Norma

09/02/22

EJERCICIOS DE CLASE

$\lim_{PH \to 6.6} x^2$

$\lim (6.6)^2 = 43.56$

$\lim_{PH \to 7.6} x^2$

$\lim (7.6)^2 = 57.76$

$\lim_{PH \to 7.8} x^2$

$\lim (7.8)^2 = 60.84$

$\lim_{PH \to 8} x^2$

$\lim (8)^2 = 64$

Propiedades de los límites

EJERCICIOS DE CLASE

15/02/22

① $\lim_{x \to a} C = C$ — x no importa — constante = constante

② $\lim_{x \to a} x = a$

③ $\lim_{x \to a} x^n = a^n$

④ $\lim_{x \to a} \sqrt[n]{x} = \sqrt[n]{a}$ $\quad \lim_{x \to 4} \sqrt{x} = \lim \sqrt{4} = 2$

⑤ $\lim_{x \to a} k[f(x)] = k = k \lim_{x \to a} f(x) = kL$

$\lim_{x \to 2} k[f(x)] \quad k\left[\lim_{x \to 2}(fx)\right] = 2(2) = 4$

$\lim_{x \to} 4[2] = 8$

⑥ $\lim_{x \to a} f(x) \pm g(x) = \lim_{x \to a} f(x) \pm \lim_{x \to a} g(x) = L \pm M$

"El límite de $2x + 3x$ cuando tiende x a 3 es = 15"

$\lim_{x \to 3} 2x + 3x = 6 + 9 = 15$

$\lim_{x \to 3} (2(3)) + (3(3)) = 6 + 9 = 15$

⑦ $\lim_{x \to a} f(x) \cdot g(x) = \lim_{x \to a} f(x) \cdot \lim_{x \to a} g(x) = L \cdot M$

"El límite de $2x$ por $4x$ cuando tiende x a 3 es = 72"

$\lim_{x \to 3} [2x \cdot 4x]$

$\lim_{x \to 3} [2(3) \cdot 4(3)] =$

$= 6 \cdot 12 = 72$

$\left[2 \cdot \lim_{x \to 3} x\right]\left[4 \cdot \lim_{x \to 3} x\right] = \lim_{x \to 3} 2(3) \cdot \lim_{x \to 3} 4(3)$

$6 \cdot 12 = 72$

Números primos: 2, 3, 5, 7, 11, 13

15/02/22

④ $\lim_{x \to a} f(x) + g(x) = \lim_{x \to a} f(x) + \lim_{x \to a} g(x) = L \pm M, \; M \neq 0$

$\lim_{x \to a} \frac{f(x)}{g(x)}$

$\lim_{x \to 2} \frac{4x}{8x} = \frac{4(2)}{8(2)} = 0.5$

EJERCICIOS DE CLASE ¿Sa + 0^2 Hb?
Y TAREA

① $\lim_{x \to 6} k[f(x)] = 6(6) = 36$

② $\lim_{x \to 9} k[f(x)] = 9(9) = 81$

③ $\lim_{x \to 5.5} k[f(x)] = 5.5(5.5) = 30.25$

① 36 | 2 — 18 | 2 — 9 | 3 — 3 | 3 — 1 | MCD = 2

6 — 100%
2 — 33.33%

② 81 | 3 — 27 | 3 — 9 | 3 — 3 | 3 — 1 |

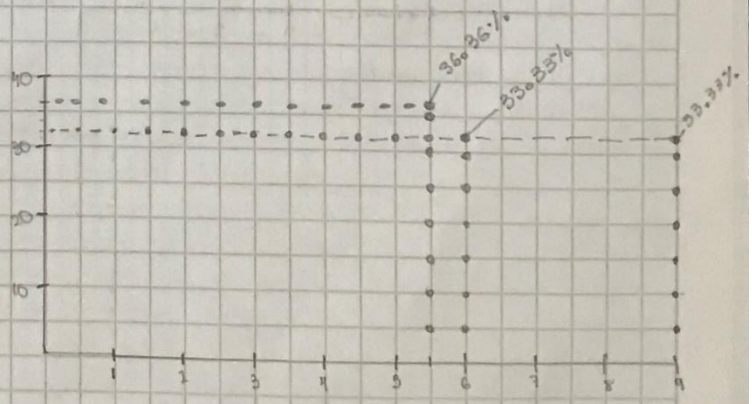
MCD = 3

9 — 100%
3 — 33.33%

③ 30 | 2 — 15 | 3 — 5 | 5 — 1 |

MCD = 2

5.5 — 100%
2 — 36.36%



TAREA

15/02/22

① $\lim_{x \to 2} \frac{4x+2x}{3x-2x} = \frac{4(2)+(2)(2)}{3(2)-2(2)} = \frac{8+4}{6-4} = \frac{12}{2} = \frac{6}{2} = 3$

② $\lim [Fx]^n = \lim_{x \to a} x^n = [a]^n$

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

③ $\lim_{x \to a} \sqrt[n]{Fx} = \lim_{x \to a} \sqrt{x}$

$\lim_{x \to 2} \sqrt{2x} = \sqrt{2 \cdot (2)} = \sqrt{4} = 2$

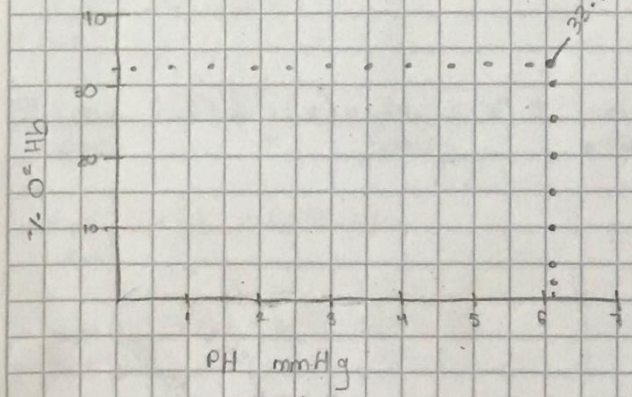
④ $\lim_{x \to 6.1} 80x = 80(6.1) = 488$

488	2
244	2
122	2
61	61
1	

mcd = 2

6.1 — 100%

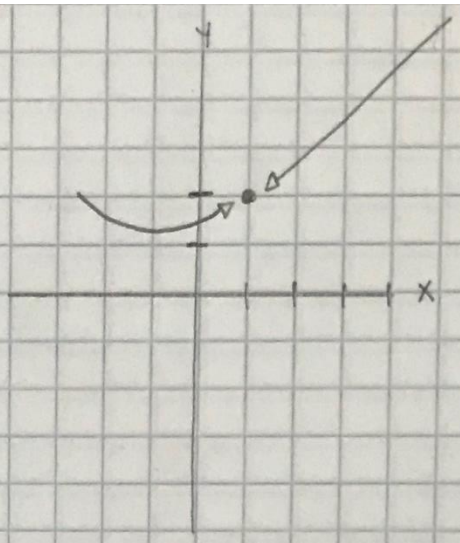
2 — 32.78%



16/02/22

EJERCICIOS DE CLASE

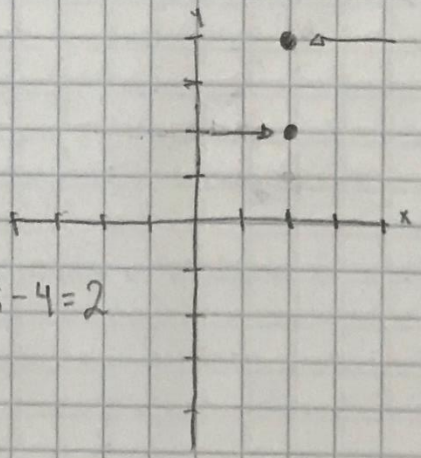
① $f(x) \frac{|x|}{x} = \begin{cases} x^2 + 1 & \text{si } x < 1 \\ 2 & \text{si } x > 1 \end{cases}$



$\lim_{x \to 1^-} x^2 + 1 = 1^2 + 1 = 2$

$\lim_{x \to 1^+} 2 = 2$

② $f(x) = \frac{|x|}{x} \begin{cases} x^2 & \text{si } < 2 \\ 4 & \text{si } x = 2 \\ 6 - 2x & \text{si } x > 2 \end{cases}$



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

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

$\lim_{x \to 2} 6 - 2x = 6 - 2(2) = 6 - 4 = 2$