



**Campus Comitán**

**Licenciatura de medicina humana**

**TEMA: PONIENDO LIMITES**

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**Grado y Grupo: 2 A**

**Materia:**

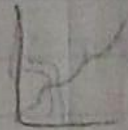
**BIOMATEMATICAS**

**Nombre del profesor:**

**ROSVANI MARGINE MORALES IRECTA**

PH = 6.6  $x^2$  ✓ 43.56

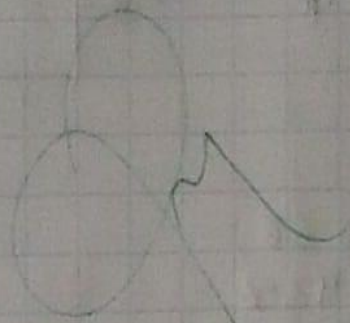
Lim  $x^2$   
PH = 6.6.



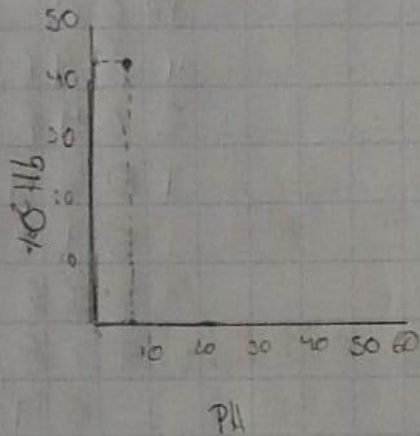
PH = 7.6  $x^3$  ✓ 59.76

PH = 7.8  $x^3$  ✓ 60.84

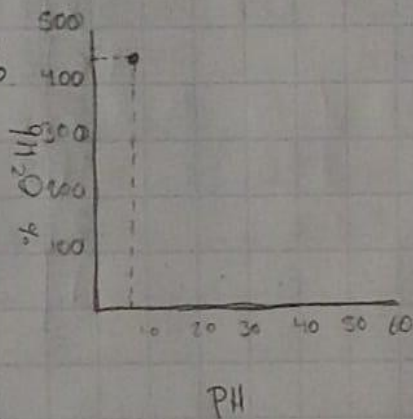
PH = 8  $x^4$  ✓ 64



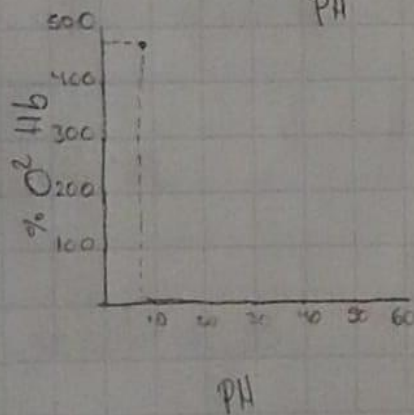
① Lim  $x^2 = 43.56$   
PH  $\rightarrow$  6.6



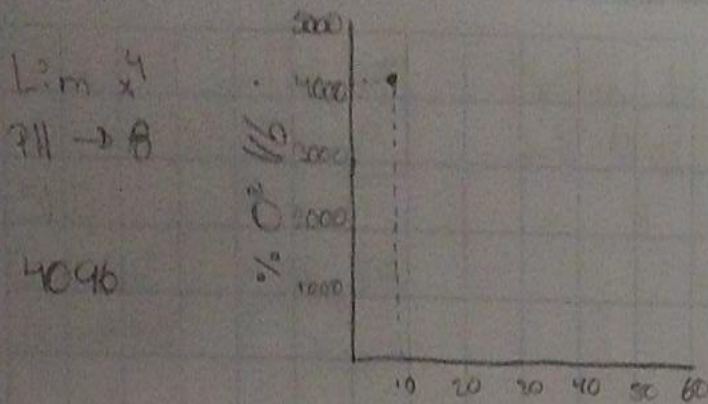
② Lim  $x^3 = 438.976$   
PH  $\rightarrow$  7.6



③ Lim  $x^3$   
PH  $\rightarrow$  7.8



471.552



pH

pH = 6.6

① 43.56

pH = 8 x<sup>4</sup>

4	0	9	6		2
2	0	4	8		2
1	0	2	4		2
5	1	2	2		2
2	5	6	2		2
1	2	8	2		2
6	4		2		2
3	2		2		2
1	6		2		2
8		2		2	2
4		2		2	2
2		2		2	2
1		2		2	2

pH = 7.6

② 57.76

③ pH = 7.8

60.84

④ pH = 8

64

Proces de lucru

$$P4: 6 \quad \lim_{x \rightarrow 6} = 6(6) = 36$$

$$C: 80 \quad \lim_{x \rightarrow 6} 80x$$

$$\lim_{x \rightarrow 6} 80(6) = 480$$

$$P4: 9 \quad \lim_{x \rightarrow 9} = 9(9) = 81$$

$$P4: 35 \quad \lim_{x \rightarrow 35} = 55(35) = 30.25$$

$$\lim_{x \rightarrow 3} [2x \cdot 4x] \quad \lim_{x \rightarrow 3} [2(3) \cdot 4(3)]$$

$$[6 \cdot 12]$$

$$[72]$$

$$\lim_{x \rightarrow 3} x = 72$$

$$\textcircled{5} \quad \lim_{x \rightarrow a} x^n = a^n$$

$\textcircled{6}$  Si  $K$  es una constante  $\lim_{x \rightarrow a} K = K$

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

$$\lim_{x \rightarrow 2} \frac{4x + 2x}{3x - 2x} = \frac{8}{6} = 1.33$$

$$\lim_{x \rightarrow a} [f(x)]^n = \lim_{x \rightarrow a} x^n$$

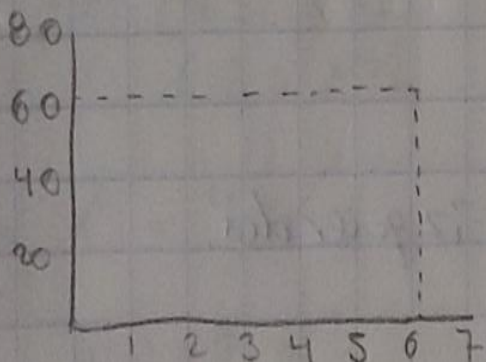
$$\lim_{x \rightarrow a} \sqrt[n]{f(x)} = \lim_{x \rightarrow a} \sqrt[n]{x}$$

$$\textcircled{1} \lim_{x \rightarrow 2} [2x]^3 = 64$$

$$\textcircled{2} \lim_{x \rightarrow 2} \sqrt{2x} = \sqrt{4} = 2$$

$$C = 80 \lim_{x \rightarrow 6.1} 80x$$

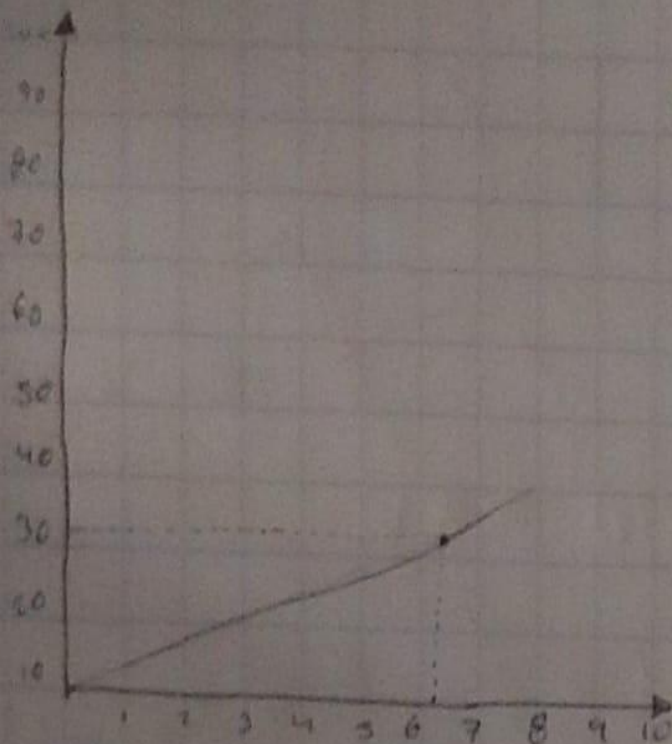
$$\lim_{x \rightarrow 6.1} 80(6.1) = 488 = \underline{\underline{61}}$$



PH 6.1 ¿Sato' 11b?  $K=80$

$$\lim_{x \rightarrow a} K$$

$$\lim_{x \rightarrow 6.1} 80(6.1) = 488 = 2$$



Cuando  $x$  se acerca a  $C$  por la derecha.

$$\lim_{x \rightarrow a} f(x)$$

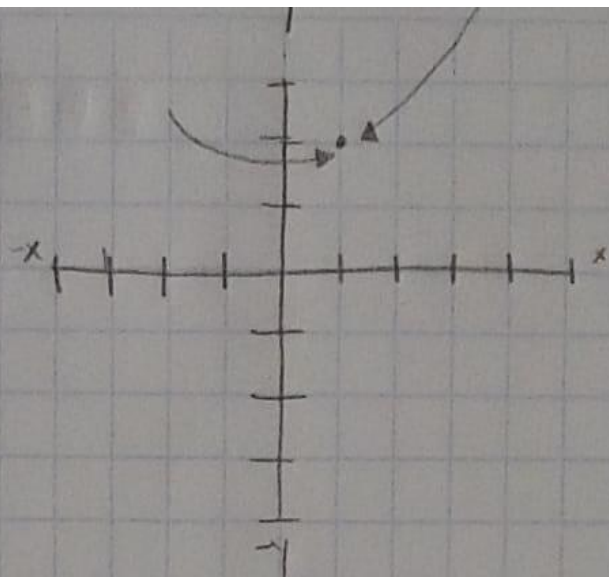
$$\lim_{x \rightarrow 0^+} \frac{\lfloor x \rfloor}{x}$$

Cuando  $x$  se acerca a  $C$  por la izquierda.

$$\lim_{x \rightarrow a} f(x)$$

$$\lim_{x \rightarrow 0^-} \frac{\lfloor x \rfloor}{x}$$

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



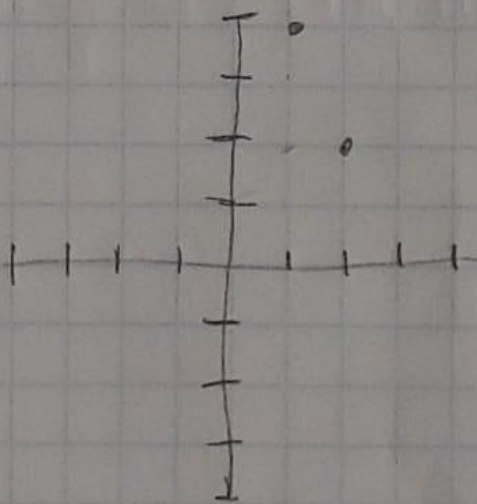
$$f(x) = \frac{|x|}{x} = 1 + 1 = -2$$

$$f(x) = \frac{|x|}{x} = 2 + 1 = 3$$

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

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

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



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

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

$$\lim_{x \rightarrow 2^+} 6 - 2(2) = \underline{\underline{2}}$$