Universidad del sureste

Campus Comitán

Licenciatura en Medicina Humana

Tema: Poniendo limites

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Grupo: "B"

Grado: Segundo semestre

Materia: Biomatematicas

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EJERCICIOS

Ejercicios

$\lim_{x \to 2} \dfrac{x^2 + x - 6}{x - 2} = x + 3 = 2 + 3 = 5$

$\lim_{x \to -4} \dfrac{x^2 + 5x + 4}{x^2 + 3x - 4}$ $\lim: \dfrac{(x+4)(x+1)}{(x+4)x-1}$

$x+1) = -4+1 = -3$

$(x-1 \quad -4 -1 = -5$

$= 3 = 0.6 = 5$

$\lim_{x \to 2} \dfrac{x^2 - 4}{x - 2}$ $\dfrac{(x2)(x+2)}{x-2}$

$x + 2 = 2 + 2 = 4$

PH 6   ¿ saturación de O^2 Hb?
PH 9
PH 5.5 PO^2 mm Hg
                            K = 80

(EJERCICIOS)

1.- $\lim\limits_{x \to 6} 6x = 6 \cdot \lim x = \lim 6(6) = 36$

2.- $\lim\limits_{x \to 9} 9x = 9 \lim\limits_{x \to 9} x = \lim 9(9) = 81$

3.- $\lim\limits_{x \to 5.5} 5.5x = 5.5 \lim\limits_{x \to 9} x = \lim 5.5(5.5)$
    $= 30.25$
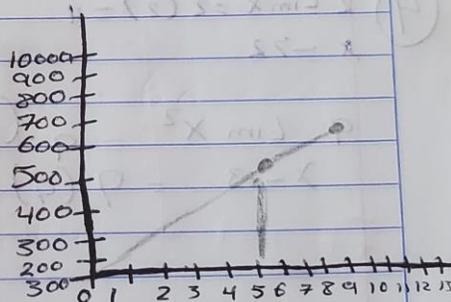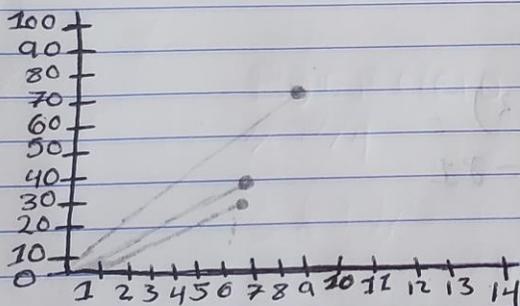
1.- $\lim\limits_{x \to 6} 6x = 6 \lim\limits_{x \to 6} = \lim 6(6) = 36$

2.- $\lim\limits_{x \to 9} 9x = 9 \lim\limits_{x \to 9} x = \lim 9(9) = 81$

3.- $\lim\limits_{x \to 5.5} 80x = 80 \lim x = \lim 80(5.5) = 440$

Ejercicios.

PH 6.6 $\lim (6.6)^2$ MCD

$\lim$ 43.56   minimo com

PH 7.6 $\lim x^2$ $x \rightarrow 7.6$

     $\lim (7.6)^2 = 57.76$

PH 7.8 $\lim x^2 (7.8)^2 = 60.84$

$x \rightarrow 7.8$

PH 8 $\lim x^2$ $x \rightarrow 8$ $(8)^2 = 64$

EJERCICIO $3x \cdot 6x$

$x \to 4$

$3(4) \cdot 6(4)$

$= 12 \cdot 24$

$= \boxed{288}$

$\lim\limits_{x \to 4} \overset{k\, f}{\dfrac{3x}{4x}}$

$\dfrac{3(4)}{4(4)} = \dfrac{12}{16} = 0.75$

$$\lim_{x \to 2.5} x^2 \qquad \lim x^2 = (1.5 = 2.25 = 6.25$$

$$\lim_{x \to 1.5} x^2 \qquad \lim x^2 = (1.5 = -2.25$$

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

$$\lim_{x \to 1} x^2 - 1 \qquad \lim x^2 \circ (1)^2 = 1$$
$$x - 1 \qquad (-1)^2 = 1$$

$$\lim_{x \to 1} \frac{x^2 - 1}{x - 1}$$

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

pO_2 mm Hg

1. $\lim\limits_{x \to 6} 80x$ $= 80 \lim\limits_{x \to 6} x$ $= \lim 80(6) = 480$

2. $\lim\limits_{x \to 9} 80x$ $= 80 \lim\limits_{x \to 9} x$ $= \lim 80(9) = 720$

3. $\lim\limits_{x \to 5.5} 80x$ $= 80 \lim\limits_{x \to 5.5} x$ $= \lim 80(5.5) = 440$
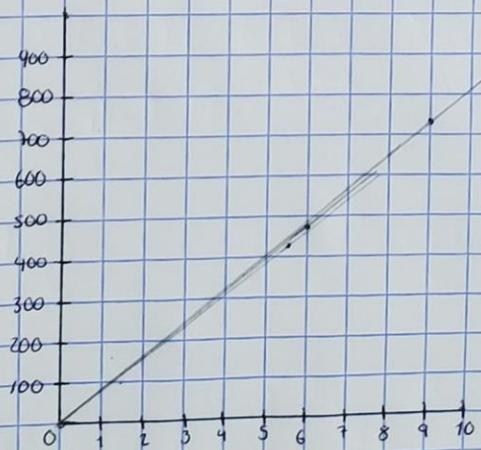
$\lim\limits_{x \to 2} f(x)$

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

2^2 si $2 < 2$
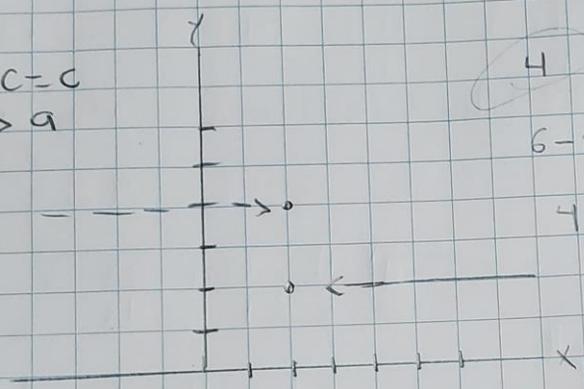
4 si $2 < 2$

$\boxed{4}$ si $2 = 2$

$6-2(2)$ si $2 => 2$

$4(2)$ si $2 = 4 \, 2$

8 si $2 = > 2$

$\lim\limits_{x \to a} c = c$

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

$x \to 1$

$(1)^2 + 1$

$1 + 1$

2

$2(1)$

2

4 propiedades de los limites

① $\lim\limits_{x \to a} C = C \quad 5 = 5$

$\lim\limits_{x \to a} x = a \qquad \lim\limits_{x \to 2} x = 2$

② $\lim\limits_{x \to a} x^n = a^n \qquad \lim\limits_{x \to 2} x^2 = 4$
$$x \to 2 = (2)^2 = 4$$

③ $\lim\limits_{x \to a} \sqrt[n]{x} = \sqrt[n]{a} \qquad \lim\limits_{x \to 4} \sqrt{x} = 2$

$\dfrac{2}{\uparrow} \qquad \dfrac{f}{\uparrow}$

$(K) \quad (x)$

$\lim\limits_{x \to 2} 2x$

④ $2 \lim\limits_{x \to 2} x = 2(2) = 4$

$9 \lim\limits_{x \to 3} x^2 = 9 (3^2) =$
$$= 9(9) = 81$$

$\lim\limits_{8 \to 8} 6x^2 \quad 6 \cdot (8)^2 = 6$
$$(64) = 384$$