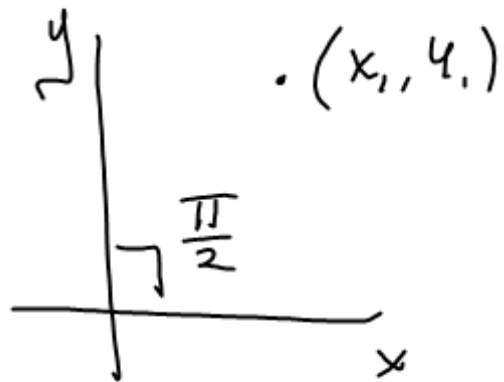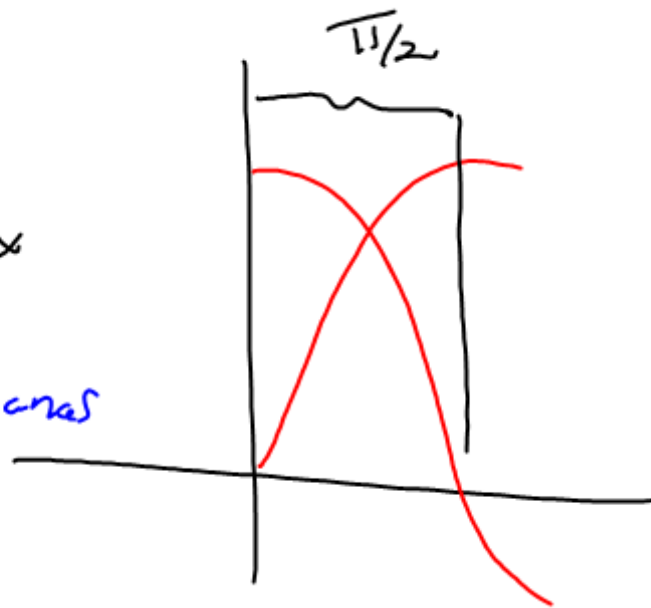$f(x)$

$\cdot (x_1, y_1)$

$\overline{\Pi/2}$

y

$\frac{\Pi}{2}$

x

$Sen(ax)$

$Cos(ax)$

Cartesianas
entre
sí.

$$f(x) = C + \sum_{n=1}^{\infty} \left(a_n \cos\left(\frac{n\pi}{L}x\right) + b_n \, sen\left(\frac{n\pi}{L}x\right) \right)$$

$$C = \frac{a_0}{2} \qquad a_0 = \frac{1}{L} \int_{-L}^{L} f(x)\,dx$$

$$a_n = \frac{1}{L} \int_{-L}^{L} f(x) \cos\left(\frac{n\pi}{L}x\right)\,dx$$

$$b_n = \frac{1}{L} \int_{-L}^{L} f(x) \, sen\left(\frac{n\pi}{L}x\right)\,dx$$

$$x^2 - 5x$$

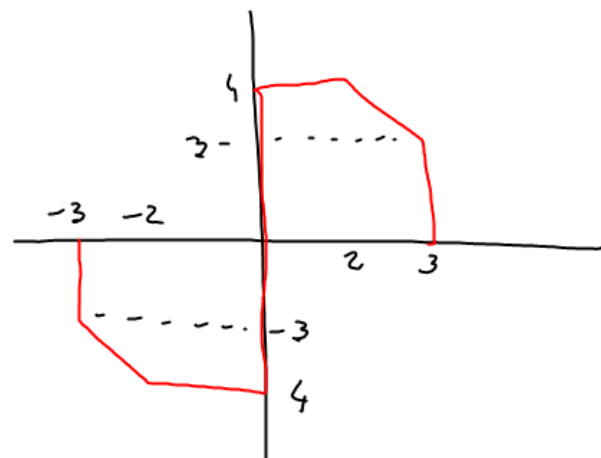$$-3 \leq x \leq 3$$

$$L = \left(\frac{3 - (-3)}{2} \right) = 3$$

$$STFf := 3 + \sum_{n=1}^{\infty} \left(\frac{36 \, (-1)^n \cos\left(\frac{1}{3} \, n \, \pi \, x \right)}{n^2 \, \pi^2} + \frac{30 \, (-1)^n \sin\left(\frac{1}{3} \, n \, \pi \, x \right)}{n \, \pi} \right)$$

$$e^{(2x)}$$

$$-1 \leq x \leq 1$$

$$L = 1$$

$$STF := -\frac{1}{4} e^{-2} + \frac{1}{4} e^2 + \sum_{n=1}^{\infty} \left(\frac{\left(-2\,e^{-2}\,(-1)^n + 2\,e^2\,(-1)^n \right) \cos(n\,\pi\,x)}{4 + n^2\,\pi^2} \right.$$

$$\left. + \frac{\left(e^{-2}\,n\,\pi\,(-1)^n - e^2\,n\,\pi\,(-1)^n \right) \sin(n\,\pi\,x)}{4 + n^2\,\pi^2} \right)$$

$$g = -3\,u(t+3) - (t+3)\cdot u(t+3) + (t+4)\,u(t+4) +$$

$$+ \, 8\,u(t) + (t-2)\,u(t-2) - (t-3)\,u(t-3) - 4\,u(t-3)$$

$$STF := \sum_{n=1}^{\infty} \left(-\frac{12\cos\left(\dfrac{3}{4}\,n\,\pi\right)}{n\,\pi} + \frac{4\left(-\sin\left(\dfrac{3}{4}\,n\,\pi\right) + \dfrac{3}{4}\cos\left(\dfrac{3}{4}\,n\,\pi\right)n\,\pi\right)}{n^2\,\pi^2} \right.$$

$$-\frac{4\left(-\sin\left(\dfrac{1}{2}\,n\,\pi\right) + \dfrac{1}{2}\cos\left(\dfrac{1}{2}\,n\,\pi\right)n\,\pi\right)}{n^2\,\pi^2} + \frac{4\cos\left(\dfrac{1}{2}\,n\,\pi\right)}{n\,\pi} + \frac{8}{n\,\pi}$$

$$+\frac{4\left(\sin\left(\dfrac{1}{2}\,n\,\pi\right) - \dfrac{1}{2}\cos\left(\dfrac{1}{2}\,n\,\pi\right)n\,\pi\right)}{n^2\,\pi^2}$$

$$\left. -\frac{4\left(\sin\left(\dfrac{3}{4}\,n\,\pi\right) - \dfrac{3}{4}\cos\left(\dfrac{3}{4}\,n\,\pi\right)n\,\pi\right)}{n^2\,\pi^2} \right)\sin\left(\dfrac{1}{4}\,n\,\pi\,t\right)$$

1º Hoy se sube la Serie 5.
   para entregar 23.59 Viernes 24 mayo

2º 3er parcial : Viernes 24 mayo 8.³⁰ J205

3º Promedios : Domingo 26 después de las
   17:00 hrs.

4º Examen Final 1º Lunes 27 8:00 hrs.
   (colegiado a libro cerrado) J205

5º Examen Final 2º Lunes 3 Junio
   8:00 J205.