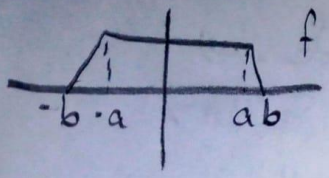
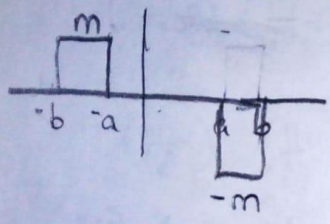
23-4-2021

Evidencia 1.11

Martínez Coronel Brayan Yosafat



$$\frac{d^2f(t)}{dt^2} = m\delta(t+b) - m\delta(t+a) - m\delta(t-a) + m\delta(t-b)$$



$$\frac{d^2f(t)}{dt} \leftrightarrow (i\omega)^2 F(\omega)$$

$$\mathcal{F}\left\{\frac{d^2f(t)}{dt^2}\right\} = m\left[e^{bi\omega} - e^{ai\omega} - e^{-ai\omega} + e^{-bi\omega}\right]$$

$$m = \frac{A-0}{-a+b} = \frac{A}{b-a}$$

$$-m = \frac{0-A}{b-a} = -\frac{A}{b-a} \quad \checkmark$$

$$F(\omega) \leftrightarrow \frac{me^{i\omega}}{(i\omega)^2}\left[e^{b} + e^{-b} - (e^{a} + e^{-a})\right]$$