3.11*

fredag 26 januari 2024 21:45

$$f(t)\,\theta(t) \longmapsto \frac{1}{\sqrt{s^2+2s+2}}$$

$$\int_0^\infty f(t)\,dt$$

$$F(s) = \int_{-\infty}^{\infty} e^{-st} \cdot f(t) \cdot \theta(t)\,dt \Rightarrow$$

$$\Rightarrow \int_0^\infty e^{-st} \cdot f(t)\,dt$$

om $s = 0 \iff \int_0^\infty f(t)\,dt$, dvs

$$F(0) = \int_0^\infty f(t)\,dt = \frac{1}{\sqrt{2}}$$