2.05*

$$P_b(t) = \frac{1}{b}\left(\theta(t) - \theta(t-b)\right)$$

8.14,17

$$\int_{-\infty}^{\infty} P_b(t)\, e^{-st}\, dt = \begin{cases} \int_0^b \frac{1}{b} e^{-st}, & di \ 0 < t < b \\ 0, & annars \end{cases}$$

$$\int_{-\infty}^{\infty} P_b(t)\, e^{-st}\, dt = \int_0^b \frac{1}{b}\, e^{-st}\, dt =$$

$$= \frac{1}{b}\left[-\frac{e^{-st}}{s}\right]_0^b = \frac{1}{b}\left(-\frac{e^{-sb}}{s} + \frac{e^0}{s}\right) =$$

$$= \frac{1}{bs}\left(1 - e^{-sb}\right)$$