

EXERCISE 11.2:

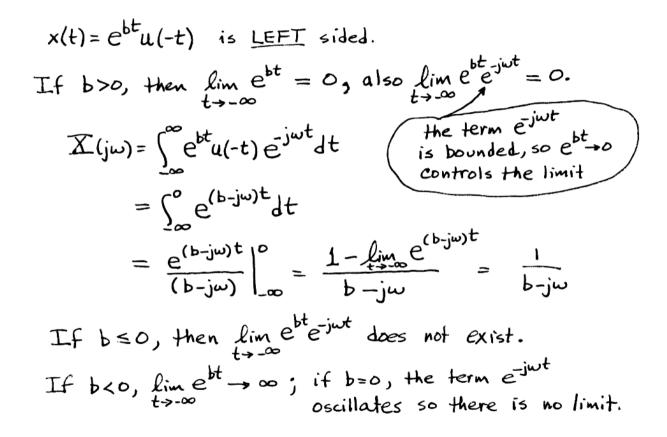
The signal $x(t) = e^{bt}u(-t)$ is an example of a *left-sided real exponential signal*. Sketch this signal for b > 0 and then show that the Fourier transform of this signal is

$$X(j\omega) = \frac{1}{b - j\omega}$$

if b > 0. Also, using (11.15), show that the Fourier transform does not exist if $b \le 0$.

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