

Fourier Transform

- 1) Find the Fourier transform of $f(t) = 5$ for $-2 \leq t \leq 2$ and 0 otherwise.

Answer

$$\frac{10 \sin(2\omega)}{\omega}$$

- 2) Find the Fourier transform of $f(t) = 4e^{-\frac{t}{2}} - e^{-2t}$

Answer

$$\frac{4}{0.5 + j\omega} - \frac{1}{2 + j\omega}$$