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Examples 4

energy oct coo.

$$= 9 e^{-4t} = 9 \sqrt{4 - 0}$$

Parseval's Meorem

$$\int_{-\infty}^{\infty} |f(t)|^2 dt = \frac{1}{2\pi} \int_{-\infty}^{\infty} |F(w)|^2 dw$$

$$F(\omega) = \frac{3}{3} = \frac{3}{100} =$$

$$|f(\omega)|^2 = f(\omega)f^*(\omega) = \frac{q}{\omega^2 + 2^2}$$

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$$W_{R} = \frac{1}{27} \int_{-\pi}^{\infty} \frac{Q}{\omega^{2} + 2^{2}} d\omega.$$

$$=\frac{2}{2\pi}\int_{0}^{\infty}\frac{\alpha}{w^{2}+z^{2}}dw=\frac{9}{\pi}\int_{0}^{\infty}\frac{1}{w^{2}+z^{2}}dw$$

$$\int \frac{1}{a^2 + a^2} dx = \frac{1}{a} \operatorname{arctan} \frac{x}{a} + C$$

$$\frac{9}{1} = \frac{1}{2} \text{ avclan } = \frac{9}{27} = \frac{71}{2} = \frac{2.25}{270} \text{ ordes}.$$

$$\frac{9}{\Pi} \frac{1}{2} \operatorname{avchan} \frac{\omega}{2} = \frac{9}{2\pi} \frac{1}{2} = \frac{9}{4} = \frac{2 \cdot 25}{2}$$