

QUESTION

Find the inverse Laplace transform of the function $\frac{1}{s^2 + 4}$.

ANSWER

$$\mathcal{L}^{-1}\left\{\frac{1}{s^2 + 4}\right\} = \mathcal{L}^{-1}\left\{\frac{\frac{1}{2}(2)}{s^2 + 2^2}\right\} = \frac{1}{2}\sin(2t)$$