

• A partir de

$$\psi(x) = \overbrace{i \cdot 2 \cdot A}^{= C} \cdot \sin(kx)$$

• Debe estar normalizado con  $\int |\psi(x)|^2 dx = 1$

$$= \int_0^L C^2 \cdot \sin^2(kx) dx$$

$$= \int_0^L C^2 \cdot \sin^2\left(\frac{n \cdot \pi}{L} \cdot x\right) \cdot dx$$

$$= C^2 \cdot \frac{L}{2} \Rightarrow C = \sqrt{\frac{2}{L}}$$

$$\Rightarrow \psi(x, t) = \sqrt{\frac{2}{L}} \cdot \sin\left(\frac{n \cdot \pi}{L} \cdot x\right) \cdot e^{-i \omega t}$$