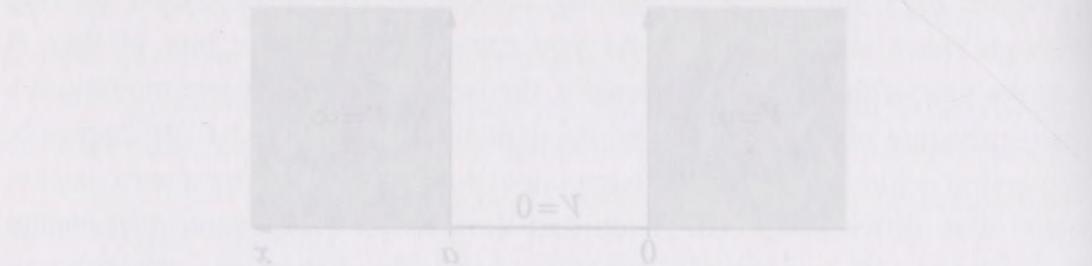


2500

## 6.2 Properties

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- (a) In this case, the wavefunction does not penetrate the side walls and satisfies  $\psi(0) = \psi(a) = 0$ . Show that  $\psi(x) = \sin(\pi x/a)$  satisfies both Eq. (6.21) and the boundary conditions. What arises with a pulse?
- (b) Normalize  $\psi(x)$ .
- (c) Plot several wavefunctions with the pulse smaller or larger and compare them with Fig. 3.5 for standing waves on a string.