

Problem 2.32

- (a) Sketch this potential.
- (b) Write the wave function for the three regions $\{x < -a, -a < x < a, x > a\}$.
- (c) Use the boundary conditions to get four equations for the five unknown amplitudes.
- (d) Use Mathematica to find the transmission and reflection coefficients and show they sum to one.
- (e) Graph the transmission coefficient versus k . Explain the fluctuations on physical grounds.