1. A string of length 10 meters coincides with the interval [0, 10] on the $x$-axis. Set up the boundary-value problem for the displacement $u(x, t)$.

   a. The ends are secured to the $x$-axis. The string is released from rest from the initial displacement $x^2(10 - x)^7$.

   b. The ends are secured to the $x$-axis. The string is along the $x$-axis at the very beginning, but has initial velocity $\sin(\pi x / 10)$.

   c. The right end is secured to the $x$-axis, but the left end moves in a **transversal** manner according to $\sin(4\pi t)$. Initially the string is undisplaced and is at rest.