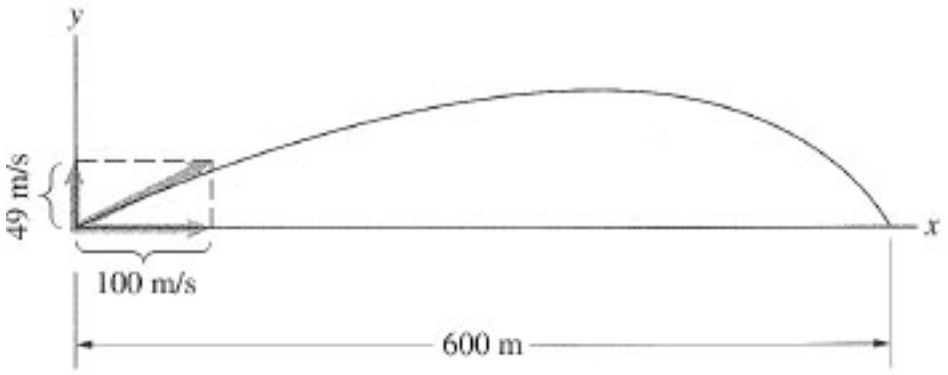
**3.90** A 20-kg projectile is launched from the ground with velocity components $v_x = 100$ m/s, $v_y = 49$ m/s. The magnitude of the aerodynamic drag force is $C|\mathbf{v}|^2$, where $C$ is a constant. If the range of the projectile is 600 m, what is the constant $C$? (Use numerical integration with $\Delta t = 0.01$ s to compute the trajectory.)




P3.90