7. The length L of the rod, as measured in a frame in which it is moving with speed v parallel to its length, is related to its rest length L_0 by $L = L_0/\gamma$, where $\gamma = 1/\sqrt{1-\beta^2}$ and $\beta = v/c$. Since γ must be greater than 1, L is less than L_0. For this problem, $L_0 = 1.70\,\mathrm{m}$ and $\beta = 0.630$, so $L = (1.70\,\mathrm{m})\sqrt{1-(0.630)^2} = 1.32\,\mathrm{m}$.