

16. In Sample Problem 44-2, it is noted that the rate of consumption of U-235 by (nonfission) neutron capture is one-fourth as big as the rate of the rate of neutron-induced fission events. Consequently, the mass of  $^{235}\text{U}$  should be larger than that computed in problem 15 by 25%:  $(1.25)(462\text{ kg}) = 5.8 \times 10^2\text{ kg}$ . If appeal is made to other sources (other than Sample Problem 44-2), then it might be possible to argue for a factor other than 1.25 (we found others in our brief search) and thus to a somewhat different result.