

22. (a) Table 43-1 gives the atomic mass of ^1H as $m = 1.007825\text{ u}$. Therefore, the *mass excess* for ^1H is $\Delta = (1.007825\text{ u} - 1.000000\text{ u})(931.5\text{ MeV/u}) = +7.29\text{ MeV}$.
- (b) The mass of the neutron is given in Sample Problem 43-3. Thus, for the neutron, $\Delta = (1.008665\text{ u} - 1.000000\text{ u})(931.5\text{ MeV/u}) = +8.07\text{ MeV}$.
- (c) Appealing again to Table 43-1, we obtain, for ^{120}Sn , $\Delta = (119.902199\text{ u} - 120.000000\text{ u})(931.5\text{ MeV/u}) = -91.10\text{ MeV}$.