

18. (a) In terms of the original value of u, the newly defined u is greater by a factor of 1.007825. So the mass of ^1H would be 1.000000 u, the mass of ^{12}C would be $(12.000000/1.007825)\text{u} = 11.90683\text{ u}$, and the mass of ^{238}U would be $(238.050785/1.007825)\text{u} = 236.2025\text{ u}$.
- (b) Defining the mass of ^1H to be exactly 1 does not result in any overall simplification.