Module 3

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1. 1. 86 protons and electrons
   2. 12 protons and electrons
2. Dysprosium
3. silicon
4. Yes, they do have the same protons and atomic number
5. 1. Calcium: protons are 20, neutrons are 26, and the electrons are 20
   2. Oxygen: protons are 8, neutrons are 9, and the electrons are 8
   3. Iron: protons are 26, neutrons are 31, and the electrons are 26
   4. Zinc: protons are 30, neutrons are 34, and the electrons are 30
   5. Mercury: protons are 80, neutrons are 124, and the electrons are 80
6. 30 neutrons, 25 protons, 25 electrons
7. (10.013 \* .198) + (11.009 \* .802) == 10.811792 amu
8. N-14 because it is closer in relation to 15 than 15
9. Protons are able to identify the element while the other parts of the atom are not able to although since the electrons are the same as the protons I believe that It would be possible to choose that way in a perfect scenario.
10. Atomic number is the number of protons while the mass is the sum of neutrons and protons
11. They relate because they are not even on all types of isotopes and so the mass accounts for that weighing the more abounding isotopes
12. (62.930 \* .692) + (64.928 \* .308) == 63.545384 amu