

Model -	schematic of system of account known properties
nucleus	center of atom, contains p ⁺ and n ⁰ + e ⁻
A	number of protons in an atom
AN	sum of numbers of p ⁺ and n ⁰ in a nucleus
isotopes	atoms with same number of p ⁺ but different A N
element	collection of atoms that have same number of protons
half-life	the total half of original sample
radioactive	atom with nucleus that isn't stable
2	electrons, protons, and neutrons
3	nuclear force, force is caused by exchange of pions between p ⁺ and n ⁰
4	electromagnetic field
5	atom is mostly empty space
6	24 electrons + protons is Se
7	10 p ⁺ and 10 e ⁻
Be	26 p ⁺ and 30 n ⁰
6	57 p ⁺ and 82 n ⁰
0	12 p ⁺ and 12 n ⁰
8	2nd atom also has 18 p ⁺
9	¹¹² Sn ¹²⁴ Sn ¹⁵⁰ Sn
10	8 p 8 n 8 e ⁻
11	12 p 13 n 12 e ⁻
12	largest Bohr orbit is 5 or 32 e ⁻ on it
13	pions have very short lifetime, strong nuclear force can only act in 1 difference
14	⁹⁸ Ru b. ¹²⁵ Xe
15	²⁰⁸ Tl b. ²²⁰ Rn
16	gamma decay
17	2.5 grams 18 0.125
19	radio dating is usually a unreliable cuz a ss compounds are e ⁻ plus