1) Carbon is composed of 6 isotopes. The most common are listed below. Complete the table.

	p <sup>+</sup>	n	e
C-12			
C-13			
C-14			

b) Which isotopes is most abundant?	

2) How many protons & electrons are in neutral atoms of:

Be \_\_\_\_\_, O \_\_\_\_\_, Cu \_\_\_\_\_, Ne \_\_\_\_\_, K \_\_\_\_\_, Na \_\_\_\_\_, Cf \_\_\_\_\_

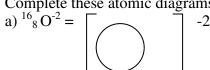
3) Complete this table:

Element	At #	p <sup>+</sup>	n	e	Symbol	Most common isotope? If not, which is?
Ca-42						
Ar-40						
H-3						
Ne-19						

- 4) Given element X, with 73 neutrons and a mass of 123 amu.
  - a) Complete, X has  $p^+ = ____, n = ____, e^- = ____, Atomic mass = ____, At. # ____$
  - b) Name the atom X =
- 5) Which of these are isotopes?

<i>e)</i>	01 111000 1110	eerepes.				
Element	P <sup>+</sup>	n	e	At. Mass	At. #	Identity
X	17	18				
Y				32	16	
Z	16	18				

- 6) Chlorine atoms are made of 2 isotopes, <sup>35</sup>Cl is 75.40% and <sup>37</sup>Cl is 24.60% in abundance. Calculate the average atomic mass for these 2 chlorine isotopes.
- 7) Complete these atomic diagrams:



b) 
$$^{80}_{35} \text{ Br}^{-1} = \boxed{ }$$

- 8) How many neutrons are in each atom:
  - a)  $^{32}_{16}$  S
- b) <sup>80</sup><sub>35</sub> Br
- c) <sup>207</sup>82 Pb
- d) <sup>108</sup><sub>47</sub> Ag