

Name:	

## Date: \_\_\_\_\_\_ Hour:

1. An atom has a mass number of 43 and it also has 21 electrons.

- a) How many protons does this atom have?
- b) What is the identity of this atom?
- c) How many neutrons does this atom have?
- 2. What is an isotope? Give an example.
- 3. A certain *ion* has an atomic number of 16, a mass number of 33, and 18 electrons.
  - a) What is the charge on the ion?
  - b) What is the identity of this ion?
  - c) How many neutrons does the nucleus of this ion have?
- 4. Tritium (an isotope of hydrogen) has 2 neutrons. How many protons does it have? What is its mass number?
- 5. What is the charge on a magnesium ion that has 10 electrons?
- 6. How many neutrons are there in a chromium atom with a mass number of 54?
- 7. Substance E has 29 protons, 28 electrons, and 34 neutrons. Substance F has 29 protons, 27 electrons, and 34 neutrons. Substances E and F can be categorized as...
  A) different elements B) ions C) isotopes D) nuclides E) nucleons
- 8. The element with 38 protons and 45 neutrons could correctly be identified as which element?

Symbol	# of neutrons	# of protons	# of electrons	Atomic #	Mass #
$^{136}_{56}$ Ba <sup>+2</sup>					
		25	25		56
		23	25		56
	120		79	79	
	120		15	15	
	21	20	18		

9. Complete the following table: