

Isotope Practice  
Chemistry  
2 points

Name: \_\_\_\_\_

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

1. Identify the parts of a periodic table entry:

	hydrogen	
	1.008	
	H	
	1	

2. How can an atom's identity (name) be determined? \_\_\_\_\_

3. How can an atom's mass number be determined? \_\_\_\_\_

4. How can an atom's number of protons be determined? \_\_\_\_\_

5. How can an atom's number of electrons be determined? \_\_\_\_\_

6. How can an atom's number of neutrons be determined? \_\_\_\_\_

Isotope	Number of Neutrons	Mass Number	Number of Protons
cadmium-116			
		113	49
		103	45
<sup>197</sup> Au			
xenon-136			
	40	71	
	106	180	
	42		33
mercury-204			
<sup>3</sup> H			
	35		35

Isotope	Number of Protons	Number of Electrons	Number of Neutrons	Mass Number
copper-63				
	6			14
$^{13}\text{C}$				
potassium-41				
	47		62	

10. Write the following isotopes using the notation  $^A_Z\text{X}$  :

- |               |       |                 |       |
|---------------|-------|-----------------|-------|
| (a) tin-124   | _____ | (e) krypton-78  | _____ |
| (b) sulfur-32 | _____ | (f) titanium-48 | _____ |
| (c) lead-204  | _____ | (g) cadmium-114 | _____ |
| (d) iron-58   | _____ | (h) thorium-232 | _____ |

11. Write the following isotopes using the notation  $^A_Z\text{X}$  :

- (a) has 59 protons and 82 neutrons: \_\_\_\_\_
- (b) has a mass number of 172 and 102 neutrons: \_\_\_\_\_
- (c) has 2 protons and 2 neutrons: \_\_\_\_\_

12. What is the function of each of the following:

- (a) electron: \_\_\_\_\_
- (b) neutron: \_\_\_\_\_
- (c) proton: \_\_\_\_\_

Isotope Using $^A_Z\text{X}$	Number of Neutrons	Number of Protons	Mass Number	Number of Electrons
		110	271	
	157			101
$^{183}\text{Ta}$				
$^{170}\text{Yb}$				