

Name: _____

Periodic Table/Chemical Bonding Review

1. How many Protons?

Lead

Iodine

Uranium

2. How many Neutrons?

Mercury

Magnesium

Bromine

3. How many Electrons?

Gold

Zinc

Xenon

4. How many Shells?

Radon

Chromium

Silver

5. How many Valence Electons?

Barium

Tin

Bromine

6. Vertical Columns are called _____ or _____.

Elements in the same vertical column have the same number of

_____.

7. Horizontal rows are called _____. Elements in the same horizontal row

have the same number of _____.

8. What are the elements to the right of the zigzag line called?

9. What are the elements to the left of the zigzag line called?

10. There are more _____ than _____ on the periodic table.

11. The name of Family 1 is _____

12. The name of Family 2 is _____

13. The name of Family 17 is _____

14. The name of Family 18 is _____

~~15.~~ What 'memory device' can you use to remember the metalloids?

16. List the metalloids:

Counting Atoms - List the number of atoms of each element on the blank.

17. AlBr_3 _____

18. 3CaCl_2 _____

~~19. $4 \text{Be}(\text{OH})_2$~~ _____

Balanced or Unbalanced?

20. $\text{Na} + \text{O}_2 \rightarrow \text{Na}_2\text{O}$ _____

21. $\text{Br}_2 + \text{Ca} \rightarrow \text{CaBr}_2$ _____

22. $\text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ _____

Chemical Equations:



23. What are the reactants in this chemical reaction?

24. What are the products in this chemical reaction?

25. What do you call the small numbers written behind the symbols? _____

26. What do the small numbers tell you? _____

27. What do you call the large numbers in front of the formulas? _____

28. What do these large numbers tell you? _____

29. Is this chemical equation balanced or not? _____

30. What does the arrow mean? _____

Electron Configuration - Write the electron configuration for the following elements:

31. Phosphorus _____

32. Calcium _____

33. Chlorine _____

34. Carbon _____

35. Sodium _____

36. Sulfur _____

Metals vs. Non-metals

37. Elements that LOSE electrons forming positive ions are : _____

38. Elements that GAIN electrons forming negative ions are: _____

39. Elements that are different colors, dull, brittle and good insulators are: _____

40. Elements that are usually solid, silver, shiny and good conductors are: _____

41. Elements that are malleable and ductile are: _____

Chemical Bonding: Choose the correct name for the description of the bonds below

Ionic Bond

Covalent Bond

Metallic Bond

42. 2 atoms SHARE 2 electrons: _____

43. Many metal atoms share many electrons: _____

44. A metal gives electrons to a non-metal: _____

45. Mendeleev's original periodic table was arranged by: _____

46. The modern periodic table is arranged by: _____