

Periodic Table Worksheet

Name _____ Per. ____

1. Periodic means _____.

Examples of periodic properties:

2. What is a group (or family)? _____ What is a period? _____
3. How can you determine the number of electrons in an element's outer energy level by the group it's in?
4. What is the octet rule?
5. Why do elements that make positive ions occur on the left side of the periodic table while those that make negative ions occur on the right?
6. What is the common name for group 18? _____
Why do the elements of this group usually not form ions?

7. Complete the following table.

| Group | Common Name | Charge on Ions of this Group |
|---------|-------------|------------------------------|
| 1 | | |
| 2 | | |
| 13 / 3A | ----- | |
| 16 / 6A | ----- | |
| 17 / 7A | | |

8. Predict the charges on ions of the following atoms.

Ra _____ As _____ Te _____ Cs _____ In _____ At _____ Ga _____

9. a) In group 1, which element is the most active? _____
b) Metallic activity tends to (increase, decrease) as one goes down Group 1.
10. a) Which element is most active in group 17? _____
b) Nonmetal activity tends to (increase, decrease) as one goes down Group 17.

11. Compare and contrast ionization energy and atomic radius.

| | Ionization Energy | Radius |
|--|-------------------|--------|
| Definition: | _____ | _____ |
| | _____ | _____ |
| Largest values (metal or nonmetal side) | _____ | _____ |
| Largest values (top or bottom of group) | _____ | _____ |