

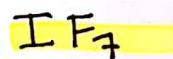
WORKSHEET: Ionic vs. Covalent!

Name: KEY

Per:

Determine whether the following compounds are **covalent** or **ionic** and give them their proper formulas.

1. Lead (II) phosphate **ionic**
 Pb^{2+} PO_4^{3-} $\text{Pb}_3(\text{PO}_4)_2$
2. Potassium nitrite **ionic**
 K^+ NO_3^- KNO_3
3. Sulfur dioxide **covalent**
 SO_2
4. Ammonium nitrate **ionic**
 NH_4^+ NO_3^- NH_4NO_3
5. Iodine heptafluoride **covalent**



Determine whether the following compounds are **covalent** or **ionic** and give them their proper names.

11. Ba(NO_3)₂ **-ionic**
barium nitrate
12. CO **-covalent**
carbon monoxide
13. PCl₃ **-covalent**
phosphorus trichloride
14. KI **-ionic**
potassium iodide.
15. CF₄ **-covalent**
carbon tetrafluoride

Compare ionic and covalent compounds in the following properties:

21. electrical conductivity of the compound in aqueous solution

ionic are good conductors when dissolved in water while
 covalent are not good conductors

22. electrical conductivity of the compound in liquid form

Same as #22 (except in liquid form instd of dissolved)

23. solubility in water

ionic compounds are soluble in water while covalent
 compounds are not

24. melting points

ionic compounds have higher melting points than
 covalent compounds

25. which categories of elements (metal/nonmetal) usually bond

ionic compounds are composed of metals & nonmetals
 covalent compounds are composed of only nonmetals

6. Calcium **ionic**
 Ca^{2+} OH^- $\text{Ca}(\text{OH})_2$
7. Dinitrogen pentoxide **covalent**
 N_2O_5
8. Barium carbonate **ionic**
 Ba^{2+} CO_3^{2-} BaCO_3
9. Chromium (III) sulfite **ionic**
 Cr^{3+} SO_3^{2-} $\text{Cr}_2(\text{SO}_3)_3$
10. Phosphorus pentafluoride **covalent**
 PF_5

16. MgO **-ionic**
magnesium oxide
17. Cu₂S **-ionic**
copper (1) sulfide
18. SO₂ **-covalent**
sulfur dioxide
19. NCl₃ **-covalent**
nitrogen trichloride
20. XeF₆ **-covalent**
xenon hexafluoride