

Protons, Neutrons, and Electrons Practice

Worksheet

Fill in the blanks in the following worksheet. Please keep in mind that the isotope represented by each space may NOT be the most common isotope or the one closest in atomic mass to the value on the periodic table.

Atomic symbol	Atomic number	Protons	Neutrons	Electrons	Atomic mass
B			6		
	11				24
		31	37		
				39	89
	29		35		
		43			100
Pb					207
			102	70	
		89			225
Mo			53		
	81				206
	100		159		
No					261
Yb					172
		106	159		

Covalent Bonds/Ionic Bonds and Bohr/Lewis Dot Structures

Name: _____

Date: _____

Draw the Bohr diagrams and Lewis Dot structures for the following molecules (covalent bonds).



Use with textbook pages 186–196.

Chemical names and formulas of ionic compounds

1. Write the name for each of the following compounds.

(a) BeS
_____(k) Ni(OH)₂
_____(b) Hg₃N₂
_____(l) K₂Cr₂O₇
_____(c) Cu(NO₃)₂
_____(m) ScF₃
_____(d) Ag₂O
_____(n) NaI
_____(e) CoBr₂
_____(o) Pb(CO₃)₂
_____(f) Bi₃(PO₄)₅
_____(p) RbClO₂
_____(g) CaF₂
_____(q) K₃P
_____(h) Mn₂O₃
_____(r) Mg(CN)₂
_____(i) Cr₂(SO₄)₃
_____(s) SnS
_____(j) ZnCl₂
_____(t) NaHCO₃

2. Write the chemical formula for each of the following compounds.

(a) aluminum bromide _____

(k) cadmium(II) hydroxide _____

(b) platinum(II) sulphide _____

(l) zinc phosphate _____

(c) strontium sulfite _____

(m) barium chloride _____

(d) scandium oxide _____

(n) tin(II) permanganate _____

(e) titanium(IV) nitrite _____

(o) lithium hypochlorite _____

(f) ammonium sulphate _____

(p) gold(III) sulphate _____

(g) lithium selenide _____

(q) sodium nitrate _____

(h) lead(II) hydrogen sulphate _____

(r) chromium(III) chloride _____

(i) sodium acetate _____

(s) potassium carbonate _____

(j) cesium chloride _____

(t) iron(III) bisulphate _____

Naming Covalent Compounds Worksheet

Write the formulas for the following covalent compounds:

- 1) antimony tribromide omit
- 2) hexaboron ^{monoxide} silicide _____
- 3) chlorine dioxide _____
- ~~4) hydrogen iodide~~ omit
- 5) iodine pentafluoride _____
- 6) dinitrogen trioxide _____
- 7) ammonia omit
- 8) phosphorus triiodide _____

Write the names for the following covalent compounds:

- 9) P_4S_5 _____
- 10) O_2 _____
- 11) SeF_6 _____
- 12) Si_2Br_6 _____
- 13) SCl_4 _____
- 14) CH_4 _____
- 15) B_2Si _____
- 16) NF_3 _____

DATE:

NAME:

CLASS:

CHAPTER 4

Chemical Names and Formulas

BLM 2-14

Goal • Review your understanding of chemical names and formulas.**What to Do**

Complete the following table.

	Chemical Formula	Ionic or Covalent?	Name of Compound
1.	NH_4Cl		
2.			potassium sulphide
3.	Cl_4		
4.			calcium oxide
5.			ammonium chloride
6.	Li_3N		
7.	$\text{Mg}(\text{OH})_2$		
8.			zinc oxide
9.	CuNO_3		
10.			oxygen dichloride
11.	CuCl		
12.	FeCl_2		
13.			carbon tetrabromide
14.			aluminum chromate

Goal • Use this page to identify chemical compounds.

1. Complete the following table.

Name	Formula	Ionic or Covalent?
(a)	NaCl	
(b)	MgO	
(c) lithium iodide		
(d) carbon dioxide		
(e) strontium hydroxide		
(f)	K ₂ S	
(g)	CuBr ₂	
(h) sulphur trioxide		
(i)	Ba ₃ (PO ₄) ₂	
(j) aluminum hydroxide		
(k) oxygen difluoride		
(l)	NH ₄ CN	
(m)	Fe(NO ₃) ₃	
(n) gold(III) sulphate		
(o) iron(II) carbonate		
(p) carbon tetraiodide		
(q)	FeI ₃	
(r) dinitrogen trioxide		

Mixed Ionic/Covalent Compound Naming

For each of the following questions, determine whether the compound is ionic or covalent and name it appropriately.

- 1) Na_2CO_3 _____
- 2) P_2O_5 _____
- 3) NH_3 _____
- 4) FeSO_4 _____
- 5) SiO_2 _____
- 6) GaCl_3 _____
- 7) CoBr_2 _____
- 8) B_2H_4 _____
- 9) CO _____
- 10) P_4 _____

For each of the following questions, determine whether the compound is ionic or covalent and write the appropriate formula for it.

- 11) dinitrogen trioxide _____
- 12) nitrogen _____
- 13) methane _____
- 14) lithium acetate _____
- 15) phosphorus trifluoride _____
- 16) vanadium (V) oxide _____
- 17) aluminum hydroxide _____
- 18) zinc sulfide _____
- 19) silicon tetrafluoride _____
- 20) silver phosphate _____

Science 10

Draw the Lewis dot diagrams for the following ionic compounds (i.e., metal/non-metal).



