

Writing Ionic Formulas Worksheet Questions and Answers PDF

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Part 1: Building a Foundation		
What is the charge of a sodium ion (Na ⁺)?		
Hint: Recall the charge of sodium ions.		
 ○ A) -1 ○ B) +1 ✓ ○ C) +2 ○ D) 0 		
The charge of a sodium ion is +1.		
Which of the following are common anions?		
Hint: Identify the negatively charged ions.		
 A) Chloride (Cl¹) ✓ B) Sodium (Na¹) C) Oxide (O²) ✓ D) Calcium (Ca²⁺) 		
Common anions include chloride and oxide.		
Explain the difference between a cation and an an ion.		

Hint: Consider the charges of the ions.



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A cation is a positively charged ion, while an an ion is a negatively charged ion.
List two examples of polyatomic ions and their charges.
Hint: Think of common polyatomic ions.
1. Example 1
Sulfate (SO ₄ ²)
2. Example 2
Nitrate (NO ₃ -)
Examples include sulfate (SO ₄ ²) and nitrate (NO ₃).
Part 2: Understanding and Interpretation
Which of the following heat decayibes the guineints of charge belongs in ingle cases at 1.0
Which of the following best describes the principle of charge balance in ionic compounds?
Hint: Consider the overall charge of the compound.
A) The total number of atoms must be equal.
 ○ B) The total positive charge must equal the total negative charge. ✓ ○ C) The compound must contain equal numbers of actions and onions
C) The compound must contain equal numbers of cations and anions.D) The compound must be electrically neutral.

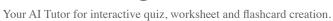
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Which statements are true about polyatomic ions? Hint: Consider the properties of polyatomic ions. A) They are made of covalently bonded atoms. ✓ B) They can have a positive or negative charge. ✓ C) They are always negatively charged. D) They are treated as a single unit in formulas. ✓ Polyatomic ions can have a positive or negative charge and are treated as a single unit in formulas. Describe how subscripts are used in writing ionic formulas and provide an example. Hint: Think about how subscripts indicate the number of ions. Subscripts indicate the number of each type of ion in a formula, e.g., in NaCl, there is one sodium and one chloride ion. Part 3: Application and Analysis
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and one chloride ion.
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Part 3: Application and Analysis
What is the correct formula for a compound formed between aluminum ions (Al $^{3+}$) and oxide ions (O 2)?
Hint: Consider the charges of the ions when balancing.
 ○ A) AIO ○ B) AI₂O₃ ✓ ○ C) AI₃O₂ ○ D) AIO₂

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I	The correct formula is Al_2O_3 .
w	hich of the following formulas correctly represent ionic compounds?
Hi	nt: Identify the correct ionic formulas.
	A) NaCl ✓ B) Ca(NO ₃) ₂ ✓ C) K ₂ SO ₄ ✓ D) Mg ₂ Cl
I	Correct formulas include NaCl, $Ca(NO_3)_2$, and K_2SO_4 .
	rite the formula for a compound formed between calcium ions (Ca²+) and phosphate ions (PO₄³). cplain your reasoning.
Hi	nt: Consider the charges of the ions when determining the formula.
	The formula is $Ca_3(PO_4)_2$, balancing the charges of the ions.
- If a	a compound is formed between magnesium ions (Mg^{2*}) and sulfate ions (SO_4^{2*}), what can be ferred about the ratio of ions in the compound?
Hi	nt: Consider the charges of the ions.
000	A) 1:1 ✓ B) 2:1 C) 1:2 D) 3:2
	The ratio of ions in the compound is 1:1.
P	art 4: Evaluation and Creation

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