#### Names to Formulas 1

# Apprentice Difficulty Level Question Group 1 Question 1

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| CO <sub>2</sub> | PCI <sub>3</sub> | NO <sub>3</sub> |
|-----------------|------------------|-----------------|
| dioxide         | trichloride      | monoxide        |
| carbon          | phosphorous      | nitrogen        |

#### Question 2

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| nitrogen | carbon          | phosphorous |
|----------|-----------------|-------------|
| monoxide | dioxide         | trichloride |
| NO       | 60              | DOL         |
| NO       | CO <sub>2</sub> | PCI         |

#### **Question 3**

| PCI <sub>3</sub> | N <sub>3</sub> O | C <sub>2</sub> O |
|------------------|------------------|------------------|
| trichloride      | monoxide         | dioxide          |
| phosphorous      | nitrogen         | carbon           |

## Question Group 2 Question 4

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| sulfur          | carbon   | nitrogen         |
|-----------------|----------|------------------|
| hexafluoride    | monoxide | trioxide         |
| SF <sub>5</sub> | со       | N <sub>3</sub> O |

#### Question 5

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| nitrogen | sulfur          | carbon   |
|----------|-----------------|----------|
| trioxide | hexafluoride    | monoxide |
|          |                 |          |
| $N_2O_3$ | SF <sub>6</sub> | CO       |

#### **Question 6**

| carbon   | nitrogen        | sulfur          |
|----------|-----------------|-----------------|
| monoxide | trioxide        | hexafluoride    |
| СО       | NO <sub>3</sub> | SF <sub>7</sub> |

#### **Question 7**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| N <sub>2</sub> O <sub>4</sub> | CS <sub>2</sub> | N₃F         |
|-------------------------------|-----------------|-------------|
| tetroxide                     | disulfide       | trifluoride |
| dinitrogen                    | carbon          | nitrogen    |

#### **Question 8**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| NF <sub>3</sub> | $N_4O_2$   | CS <sub>2</sub> |
|-----------------|------------|-----------------|
| trifluoride     | tetroxide  | disulfide       |
| nitrogen        | dinitrogen | carbon          |

#### **Question 9**

| C <sub>2</sub> S | NF          | $N_2O_4$   |
|------------------|-------------|------------|
| disulfide        | trifluoride | tetroxide  |
| carbon           | nitrogen    | dinitrogen |

## Question Group 4 Question 10

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| dinitrogen | carbon  | phosphorous      |
|------------|---------|------------------|
| trioxide   | dioxide | pentachloride    |
| $N_3O_2$   | CO2     | PCI <sub>5</sub> |

#### **Question 11**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| phosphorous      | dinitrogen | carbon           |
|------------------|------------|------------------|
| pentachloride    | trioxide   | dioxide          |
| PCI <sub>5</sub> | $N_2O_3$   | C <sub>2</sub> O |

#### Question 12

| carbon          | phosphorous                    | dinitrogen |
|-----------------|--------------------------------|------------|
| dioxide         | pentachloride                  | trioxide   |
| CO <sub>2</sub> | P <sub>5</sub> Cl <sub>3</sub> | $N_2O_3$   |

#### Master Difficulty Level Question Group 5 Question 13

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| sodium            | calcium             | potassium                        |
|-------------------|---------------------|----------------------------------|
| nitrate           | hydroxide           | sulfate                          |
| NaNO <sub>3</sub> | Ca(OH) <sub>2</sub> | K <sub>4</sub> (SO) <sub>2</sub> |

#### **Question 14**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| potassium | sodium             | calcium             |
|-----------|--------------------|---------------------|
| sulfate   | nitrate            | hydroxide           |
| K₂SO₄     | Na <sub>3</sub> NO | Ca(OH) <sub>2</sub> |

#### **Question 15**

| CaOH <sub>2</sub> | K(SO <sub>4</sub> ) <sub>2</sub> | NaNO <sub>3</sub> |
|-------------------|----------------------------------|-------------------|
| hydroxide         | sulfate                          | nitrate           |
| calcium           | potassium                        | sodium            |

## Question Group 6 Question 16

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| NaNO <sub>3</sub> | Al <sub>3</sub> CN | Ca <sub>4</sub> (SO) <sub>2</sub> |
|-------------------|--------------------|-----------------------------------|
| nitrite           | cyanide            | sulfate                           |
| sodium            | aluminum           | calcium                           |

#### **Question 17**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| CaSO <sub>4</sub> | Na <sub>3</sub> NO | AI(CN) <sub>3</sub> |
|-------------------|--------------------|---------------------|
| sulfate           | nitrite            | cyanide             |
| calcium           | sodium             | aluminum            |

#### **Question 18**

| AICN <sub>3</sub> | Ca <sub>2</sub> SO <sub>4</sub> | Na(NO) <sub>3</sub> |
|-------------------|---------------------------------|---------------------|
| cyanide           | sulfate                         | nitrite             |
| aluminum          | calcium                         | sodium              |

## Question Group 7 Question 19

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| iron(II)  | lithium                         | ammonium          |
|---|---------------------------------|-------------------|
| phosphate                                       | carbonate                       | chloride          |
| Fe <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> | Li <sub>2</sub> CO <sub>3</sub> | NHCI <sub>4</sub> |

#### **Question 20**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| ammonium           | iron(II)  | lithium                           |
|--------------------|---|-----------------------------------|
| chloride           | phosphate                                       | carbonate                         |
| NH <sub>4</sub> CI | Fe <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> | Li(CO <sub>3</sub> ) <sub>2</sub> |

#### **Question 21**

| lithium                         | ammonium             | iron(II)                          |
|---------------------------------|----------------------|-----------------------------------|
| carbonate                       | chloride             | phosphate                         |
| Li <sub>2</sub> CO <sub>3</sub> | (NH) <sub>4</sub> Cl | Fe <sub>3</sub> (PO) <sub>2</sub> |

#### **Question 22**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| ammonium                        | copper(I)                       | iron(III)          |
|---------------------------------|---------------------------------|--------------------|
| sulfate                         | carbonate                       | hydroxide          |
| NH <sub>4</sub> SO <sub>4</sub> | Cu <sub>2</sub> CO <sub>3</sub> | Fe <sub>3</sub> OH |

#### **Question 23**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| iron(III)           | ammonium | copper(I)    |
|---------------------|----------|--------------|
| hydroxide           | sulfate  | carbonate    |
|                     |          |              |
| Fe(OH) <sub>3</sub> | NHSO     | $Cu(CO_3)_2$ |

#### **Question 24**

| Cu <sub>2</sub> CO <sub>3</sub> | FeOH₃     | (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> |
|---------------------------------|-----------|---|
| carbonate                       | hydroxide | sulfate   |
| copper(I)                       | iron(III) | ammonium  |

#### Wizard Difficulty Level Question Group 9 Question 25

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| $Cu(C_2H_3O_2)_2$ | ICI <sub>3</sub> | Al <sub>3</sub> PO <sub>4</sub> |
|-------------------|------------------|---------------------------------|
| acetate           | trichloride      | phosphate                       |
| copper(II)        | iodine           | aluminum                        |

#### **Question 26**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| aluminum                          | copper(II)   | iodine            |
|-----------------------------------|--|-------------------|
| phosphate                         | acetate  | trichloride       |
| Al <sub>3</sub> (PO) <sub>4</sub> | Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> | I <sub>3</sub> CI |

#### Question 27

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| ICI <sub>3</sub> | AIPO <sub>4</sub> | Cu <sub>2</sub> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> |
|------------------|-------------------|--|
| trichloride      | phosphate         | acetate  |
| iodine           | aluminum          | copper(II)   |

## Question Group 10 Question 28

| Cr(OH) <sub>3</sub> | NH <sub>4</sub> CO <sub>3</sub> | CS <sub>2</sub> |
|---------------------|---------------------------------|-----------------|
| hydroxide           | carbonate                       | disulfide       |
| chromium(III)       | ammonium                        | carbon          |

#### **Question 29**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| C <sub>2</sub> S | CrOH₃         | (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub> |
|------------------|---------------|---|
| disulfide        | hydroxide     | carbonate                                       |
| carbon           | chromium(III) | ammonium  |

#### **Question 30**

| ammonium                            | carbon    | chromium(III) |
|-------------------------------------|-----------|---------------|
| carbonate                           | disulfide | hydroxide     |
|                                     |           |               |
| (NH) <sub>3</sub> (CO) <sub>4</sub> | CS₂       | Cr(OH)₃       |

**Question 31** 

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| $P_2O_5$      | (NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> | Ba(NO <sub>3</sub> ) <sub>2</sub> |
|---------------|---|-----------------------------------|
| pentoxide     | phosphide                                       | nitrate                           |
| diphosphorous | ammonium  | barium                            |

#### **Question 32**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| Ba(NO <sub>3</sub> ) <sub>2</sub> | $P_5O_2$      | (NH <sub>4</sub> ) <sub>3</sub> P |
|-----------------------------------|---------------|-----------------------------------|
| nitrate                           | pentoxide     | phosphide                         |
| barium                            | diphosphorous | ammonium                          |

#### **Question 33**

| (NH) <sub>3</sub> P <sub>4</sub> | Ba <sub>2</sub> NO <sub>3</sub> | P <sub>2</sub> O <sub>5</sub> |
|----------------------------------|---------------------------------|-------------------------------|
| phosphide                        | nitrate                         | pentoxide                     |
| ammonium                         | barium                          | diphosphorous                 |

**Question 34** 

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| Pb <sub>2</sub> NO <sub>2</sub> | CCI₄          | CaCO <sub>3</sub> |
|---------------------------------|---------------|-------------------|
| nitrite                         | tetrachloride | carbonate         |
| lead(II)                        | carbon        | calcium           |

#### **Question 35**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| calcium           | lead(II)     | carbon           |
|-------------------|--------------|------------------|
| carbonate         | nitrite      | tetrachloride    |
|                   |              |                  |
| CaCO <sub>3</sub> | $Pb(NO_3)_2$ | CCI <sub>3</sub> |

#### **Question 36**

| CCI <sub>4</sub> | Ca <sub>2</sub> CO <sub>3</sub> | Pb(NO <sub>2</sub> ) <sub>2</sub> |
|------------------|---------------------------------|-----------------------------------|
| tetrachloride    | carbonate                       | nitrite                           |
| carbon           | calcium                         | lead(II)                          |

#### **Question 37**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| CaCl     | $Sr_2(PO_4)_3$ | Pb(SO <sub>4</sub> ) <sub>4</sub> |
|----------|----------------|-----------------------------------|
| chloride | phosphate      | sulfate                           |
| calcium  | strontium      | lead(IV)                          |

#### **Question 38**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| Pb(SO <sub>4</sub> ) <sub>2</sub> | CaCl <sub>2</sub> | Sr <sub>3</sub> PO <sub>4</sub> |
|-----------------------------------|-------------------|---------------------------------|
| sulfate                           | chloride          | phosphate                       |
| lead(IV)                          | calcium           | strontium                       |

#### **Question 39**

| strontium                                       | lead(IV) | calcium  |
|---|----------|----------|
| phosphate                                       | sulfate  | chloride |
| Sr <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> | PbSO     | CaCl     |
| 313(1-04)2                                      | PDSU     | Caci     |

#### Question Group 14 Question 40

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| XeF₄          | Cu(NO <sub>3</sub> ) <sub>2</sub> | AICI     |
|---------------|-----------------------------------|----------|
| tetrafluoride | nitrate                           | chloride |
| xenon         | copper(II)                        | aluminum |

#### **Question 41**

In Chemistry, there are specific rules for writing the formulas of compounds having a given name. One or more of these formulas are *breaking the rules*. Select all the *rule breakers*.

| AICI <sub>3</sub> | XeF <sub>5</sub> | Cu(NO <sub>3</sub> ) <sub>2</sub> |
|-------------------|------------------|-----------------------------------|
| chloride          | tetrafluoride    | nitrate                           |
| aluminum          | xenon            | copper(II)                        |

#### **Question 42**

| Cu <sub>2</sub> NO <sub>3</sub> | AICI <sub>3</sub> | XeF₄          |
|---------------------------------|-------------------|---------------|
| nitrate                         | chloride          | tetrafluoride |
| copper(II)                      | aluminum          | xenon         |