# Jeopardy!

#### Bonding & Nomenclature Test Review

### **JEOPARDY!**

#### DOUBLE JEOPARDY

Hey girl, you single?	Are you two dating?	Three's a crowd	The Name Game	You never know what you are going to get
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>

### Question: Monoatomic Ions for \$100

What is the charge of lodine?



### Answer: Monoatomic Ions for \$100

-1

### Question: Monoatomic Ions for \$200

What is the charge of Cesium?



### Answer: Monoatomic Ions for \$200

+1

### Question: Monoatomic Ions for \$300

What is the charge of Aluminum?



### Answer: Monoatomic Ions for \$300

+3

### Question: Monoatomic Ions for \$400

What is the charge of Bismuth?



### Answer: Monoatomic Ions for \$400

-3

### Question: Monoatomic Ions for \$500

What is the charge of Manganese?



### Answer: Monoatomic Ions for \$500

+2

### Question: Binary Compounds for \$100

What is the chemical formula of sodium chloride?



### Answer: Binary Compounds for \$100

NaCl

### Question: Binary Compounds for \$200

What is the chemical formula of silver sulfide?



### Answer: Binary Compounds for \$200





### Question: Binary Compounds for \$300

What is the chemical formula of Copper (III) Telluride?



### Answer: Binary Compounds for \$300

Cu<sub>2</sub>Te<sub>3</sub>

### Question: Binary Compounds for \$400

What is the chemical formula of Thallium (I) carbide?



### Answer: Binary Compounds for \$400



### Question: Binary Compounds for \$500

What is the chemical formula of chromium (III) oxide?



### Answer: Binary Compounds for \$500





## Question: Polyatomic Compounds for \$100

What is the chemical formula of barium sulfate?

### Answer: Polyatomic Compounds for \$100

BaSO<sub>4</sub>

## Question: Polyatomic Compounds for \$200

What is the chemical formula of Iron (III) phosphate?



### Answer: Polyatomic Compounds for \$200

FePO<sub>4</sub>

## Question: Polyatomic Compounds for \$300

What is the chemical formula of copper (II) carbonate?



### Answer: Polyatomic Compounds for \$300

CuCO<sub>3</sub>

## Question: Polyatomic Compounds for \$400

What is the chemical formula of Cobalt (II) hydroxide?



### Answer: Polyatomic Compounds for \$400

 $Co(OH)_2$ 

## Question: Polyatomic Compounds for \$500

What is the chemical formula of Chromium (III) oxalate?



### Answer: Polyatomic Compounds for \$500

 $Cr_{2}(C_{2}O_{4})_{3}$ 

### Question:

# Naming Compounds for \$100

What is the name of the compound  $C_2H_4$ ?



### Answer: Naming Compounds for \$100

**Dicarbon Tetrahydride** 

### Question:

# Naming Compounds for \$200

What is the name of the compound  $Ag_2S$ ?



### Answer: Naming Compounds for \$200

Silver Sulfide



# Naming Compounds for \$300

What is the name of the compound NiCl<sub>2</sub>?



### Answer: Naming Compounds for \$300

Nickel chloride

### Question:

# Naming Compounds for \$400

What is the name of  $Fe_2(SO_4)_3$ ?

### Answer: Naming Compounds for \$400

Iron (III) Sulfate



# Naming Compounds for \$500

What is the name of  $NH_4CIO_3$ ?



### Answer: Naming Compounds for \$500

Ammonium Chlorate

### Question:

# You Never Know What You are Going to Get for \$100

When writing chemical formulas, the number \_\_\_\_\_\_\_ is omitted because it is understood to be there.

#### Answer:

# You Never Know What You are Going to Get for \$100

1

### Question:

# You Never Know What You are Going to Get for \$200

Binary Compounds contain \_\_\_\_\_\_ elements, while polyatomic compounds contain more than \_\_\_\_\_\_ elements.

#### Answer:

# You Never Know What You are Going to Get for \$200

2, 2

### Question:

# You Never Know What You are Going to Get for \$300

In binary compounds, the cation is written according to the \_\_\_\_\_\_ name, while the anion must remove its ending and add \_\_\_\_\_\_ at the end.

#### Answer:

# You Never Know What You are Going to Get for \$300

element, -ide



### Question:

# You Never Know What You are Going to Get for \$400

A chemical compound is represented by a \_\_\_\_



### Answer:

# You Never Know What You are Going to Get for \$400

**Chemical Formula** 

### Question:

# You Never Know What You are Going to Get for \$500

### What 3 sports did both Nuggie and Connor play last year?

### Answer:

# You Never Know What You are Going to Get for \$500



Baseball







### DOUBLE JEOPARDY!

FINAL JEOPARDY

It's the moments in life	Who's stronger?	What you look like?	Say my name, say my name	He said, she said
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$600</u>	<u>\$600</u>	<u>\$600</u>	<u>\$600</u>	<u>\$600</u>
<u>\$800</u>	<u>\$800</u>	<u>\$800</u>	<u>\$800</u>	<u>\$800</u>
<u>\$1000</u>	<u>\$1000</u>	<u>\$1000</u>	<u>\$1000</u>	<u>\$1000</u>

# Question: IT'S THE MOMENTS IN LIFE for \$200

A dipole moment occurs between which type of bonds?



## Answer: IT'S THE MOMENTS IN LIFE for \$200

**Covalent - specifically POLAR COVALENT** 

# Question: IT'S THE MOMENTS IN LIFE for \$400

Who has the stronger dipole moment F or P?



## Answer: IT'S THE MOMENTS IN LIFE for \$400

#### F - Fluorine

# Question: IT'S THE MOMENTS IN LIFE for \$600

Who has the stronger dipole moment Ge or As?



## Answer: IT'S THE MOMENTS IN LIFE for \$600

As - Arsenic

# Question: IT'S THE MOMENTS IN LIFE for \$800

Who has the stronger dipole moment CI or N?



## Answer: IT'S THE MOMENTS IN LIFE for \$800

CI - Chlorine

## Question: IT'S THE MOMENTS IN LIFE for \$1000

Is this picture correct? Why or Why Not?

## Answer: IT'S THE MOMENTS IN LIFE for \$1000

Yes, it's correct. You could add partial positive's and negatives, but not necessary

### Question: WHO'S STRONGER? for \$200

#### NO2 or LiF? Why?

### Answer: WHO'S STRONGER? for \$200

LiF - Ionic

### Question: WHO'S STRONGER? for \$400

RbF or KCl? Why?

### Answer: WHO'S STRONGER? for \$400

RbF - END of 3.2 versus 2.2

### Question: WHO'S STRONGER? for \$600

CaS or AIP? Why?

### Answer: WHO'S STRONGER? for \$600

AIP - charges are +-3 versus +-2

### Question: WHO'S STRONGER? for \$800

S<sub>2</sub>Br<sub>7</sub> or NO<sub>2</sub>? Why?

### Answer: WHO'S STRONGER? for \$800

NO<sub>2</sub> - END of 0.5 versus 0.3

### Question: WHO'S STRONGER? for \$1000

SO<sub>2</sub> or CO<sub>2</sub>? Why?



#### Answer: WHO'S STRONGER? for \$1000

They're EQUAL - same END



What is the Lewis Structure of water?



### Answer: WHAT YOU LOOK LIKE? for \$200

Н—О—Н



What is the Lewis Structure of CO<sub>2</sub>?



### Answer: WHAT YOU LOOK LIKE? for \$400

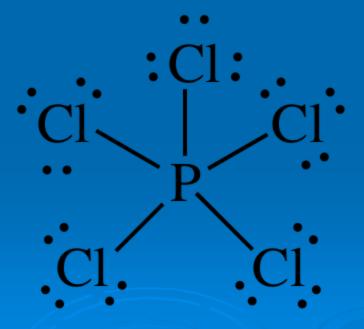
 $\ddot{0} = c = \ddot{0}$ 

# Question: WHAT YOU LOOK LIKE? for \$600

What is the Lewis Structure for PCI<sub>5</sub>?



### Answer: WHAT YOU LOOK LIKE? for \$600

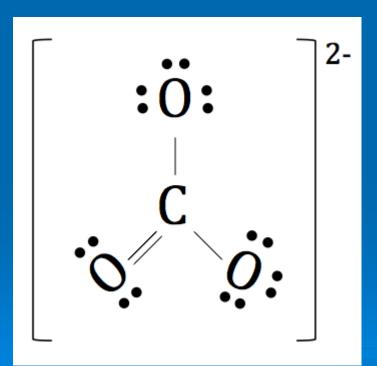


# Question: WHAT YOU LOOK LIKE? for \$800

What is the Lewis Structure of CO<sub>3</sub><sup>2-</sup>?



### Answer: WHAT YOU LOOK LIKE? for \$800

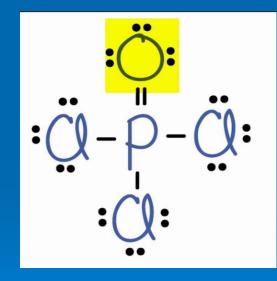


# Question: WHAT YOU LOOK LIKE? for \$1000

What is the Lewis Structure for POCl<sub>3</sub>?



### Answer: WHAT YOU LOOK LIKE? for \$1000



# Question: SAY MY NAME, SAY MY NAME for \$200

UF<sub>6</sub>

# Answer: SAY MY NAME, SAY MY NAME for \$200

**Uranium Fluoride** 

# Question: SAY MY NAME, SAY MY NAME for \$400

HgS

# Answer: SAY MY NAME, SAY MY NAME for \$400

Mercury (II) Sulfide

# Question: SAY MY NAME, SAY MY NAME for \$600

HNO<sub>2</sub>



# Answer: SAY MY NAME, SAY MY NAME for \$600

**Nitrous Acid** 

# Question: SAY MY NAME, SAY MY NAME for \$800

N<sub>2</sub>H<sub>4</sub>

# Answer: SAY MY NAME, SAY MY NAME for \$800

Dinitrogen Tetrahydride

# Question: SAY MY NAME, SAY MY NAME for \$1000

 $H_3(C_6H_5O_7)$ 



# Answer: SAY MY NAME, SAY MY NAME for \$1000

**Citric Acid** 

#### Question: HE SAID, SHE SAID for \$200

My bonds are found in all states of matter



#### Answer: HE SAID, SHE SAID for \$200

Covalent

#### Question: HE SAID, SHE SAID for \$400

In water, my bonds dissociate and conduct electricity



#### Answer: HE SAID, SHE SAID for \$400

Ionic

#### Question: HE SAID, SHE SAID for \$600

In water, I dissolve, but can't conduct electricity



#### Answer: HE SAID, SHE SAID for \$600

**Polar Covalent** 

#### Question: HE SAID, SHE SAID for \$800

Rank the strength of intramolecular & intermolecular forces strongest to weakest BONUS \$200 - What is the other name for intermolecular forces?

#### Answer: HE SAID, SHE SAID for \$800

Intra - Ionic, Polar Covalent, Nonpolar Covalent Inter - Ionic, Hydrogen Bonds, Dipole-Dipole, London Forces

**BONUS - Van Der Waals** 

#### Question: HE SAID, SHE SAID for \$1000

Why does your body need electrolytes?



#### Answer: HE SAID, SHE SAID for \$1000

Electrolytes are any substance that ionizes in water & can conduct electricity. Your nervous systems runs on electric impulses, if your body fluid is not ionized, your brain can't send messages back and forth to other parts of your body.

# Final Jeopardy!

Yeah, we're not there yet, but ....

#### QUESTION: FINAL JEOPARDY!

How many atoms are in the formula Sn<sub>3</sub>(PO<sub>4</sub>)<sub>4</sub>?



#### ANSWER: FINAL JEOPARDY!

23 totals atoms

Sn = 3 P = 4 O = 16