



Name _____ Class _____ Date _____

1 Which element of **Group 17** exists as a **solid at 25°C** and standard pressure?

- A fluorine
- B chlorine
- C bromine
- D iodine

17	
9	F Fluorine
17	Cl Chlorine
35	Br Bromine
53	I Iodine
85	At Astatine

2 Which group in the Periodic Table contains elements that are all **monatomic gases** at STP?

- A 15
- B 16
- C 17
- D 18

				18
				2 He Helium
7	8	9	10	18
N Nitrogen	O Oxygen	F Fluorine	Ne Neon	2
15	16	17	18	3
P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon	3
33	34	35	36	4
As Arsenic	Se Selenium	Br Bromine	Kr Krypton	4
51	52	53	54	5
Sb Antimony	Te Tellurium	I Iodine	Xe Xenon	5
83	84	85	86	6
Bi Bismuth	Po Polonium	At Astatine	Rn Radon	6

3 Which molecule contains a **triple covalent bond** between its atoms?

- A N₂

4 When a **chemical bond is broken**, energy is

- A absorbed only

ENERGY

5



PREVIEW

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7

- A ionization energies
- B electronegativities
- C atomic radii
- D atomic numbers

				18
				2 He Helium
6	7	8	9	10
C Carbon	N Nitrogen	O Oxygen	F Fluorine	Ne Neon
14	15	16	17	18
Si Silicon	P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon

the **lowest first ionization energy**?

- A Be
- B Mg
- C Ca
- D Ba

		3	4		
		Li Lithium	Be Beryllium		
		11	12		
		Na Sodium	Mg Magnesium		
		19	20	21	22
		K Potassium	Ca Calcium	Sc Scandium	Ti Titanium
		37	38	39	40
		Rb Rubidium	Sr Strontium	Y Yttrium	Zr Zirconium
		55	56	57	58
		Cs Cesium	Ba Barium	La Lanthanum	Hf Hafnium
		87	88	89	90
		Fr Francium	Ra Radium	Ac Actinium	Rf Rutherfordium
					100
					Db Dubnium

9

In which shell are the **valence electrons** of the elements in **Period 2** found?

- A 1
- B 2
- C 3
- D 4

					18
					2 He Helium
					10
6	7	8	9	10	2
C Carbon	N Nitrogen	O Oxygen	F Fluorine	Ne Neon	2
14	15	16	17	18	3
Si Silicon	P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon	3

10

Which of the following **Group 15** elements has the **greatest metallic character**?

- A nitrogen
- B phosphorus
- C antimony
- D bismuth

						18
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Sb Antimony	Te Tellurium	I Iodine	Xe Xenon			4
83	84	85	86	87	88	5
Bi Bismuth	Po Polonium	At Astatine	Rn Radon			5
115	116	117	118			6
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B electronegativities
C atomic radii
D atomic numbers

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55	56	57	72	73
Cs Cesium	Ba Barium	La Lanthanum	Hf Hafnium	Ta Tantalum
87	88	89	100	101
Fr Francium	Ra Radium	Ac Actinium	Rf Rutherfordium	Db Dubnium

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49	50	51	52	53	54
In Indium	Sn Tin	Sb Antimony	Te Tellurium	I Iodine	Xe Xenon
81	82	83	84	85	86
Tl Thallium	Pb Lead	Bi Bismuth	Po Polonium	At Astatine	Rn Radon