

Atomic Theory Practice Test

Name:

Date:

Block:

This practice test is designed to help you determine what concepts you DO know and more importantly what concepts you DO NOT know!

Go through the practice test THREE times:

(1) On your own

(2) With your notes

(3) With another student



Each time, if you cannot answer a question, draw a circle around it to identify that you should review this concept when preparing for the test.

1. What is an element?

2. Classify the following as an element, compound or mixture:

Fluorine: _____

CO₂: _____

Sandwich: _____

Water: _____

Coffee: _____

Computer: _____

3. What is the lightest element?

4. Which family is the following element a part of?

Radium: _____

I: _____

Sodium: _____

Xenon: _____

Mg: _____

Nickel: _____

Neon: _____

Ba: _____

5. What is an atom?

6. Give three examples of elements in substances or objects that you use:

a)

b)

c)

7. How is the Periodic Table organized?

8. What is one property/characteristic of alkali metals?

9. What does the atomic number represent?

10. What does the atomic mass measure?

11. What are the three subatomic particles?

12. Complete the following table:

Subatomic Particle	Charge	Location in the atom	Mass
	neutral		
	negative		
	positive		

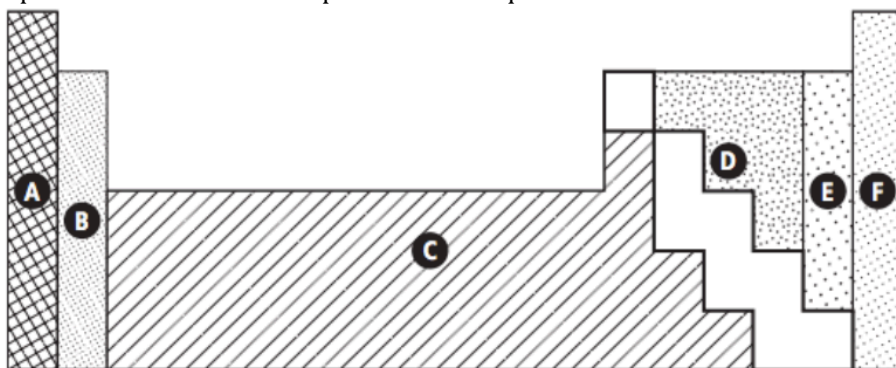
13. Determine the subatomic particle(s) described by the following statements:

- Has a charge: _____ and _____
- Has the heaviest mass: _____ and _____
- Does not have a charge: _____
- Has the lightest mass: _____
- Is found in the nucleus: _____ and _____
- Has equal masses: _____ and _____
- Gives the nucleus a positive charge: _____
- Is found in shells that surround the nucleus: _____
- Have equal quantities in all **neutral** atoms: _____ and _____

14. Why does the nucleus of an atom have a positive charge?

15. Where is most of the volume found in the atom? Explain with your answer with a diagram.

16. Use the periodic table below to help answer these questions:



- a. Argon: _____
- b. Sulfur: _____
- c. Silver: _____
- d. Tungsten: _____
- e. Alkaline Earth Metals: _____
- f. Calcium: _____
- g. Most reactive metals: _____
- h. Least reactive: _____
- i. Halogens: _____
- j. Transition metals: _____

17. Complete the following table:

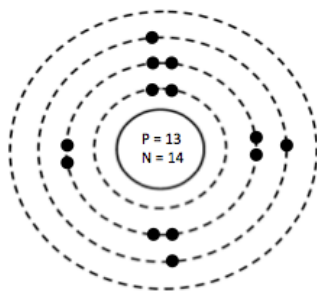
Element Name	Element Symbol	Atomic Number	Atomic Mass	# of protons	# of neutrons	# of electrons
	Ti					
		35				
	Au					
						83
					8	

18. What does a Bohr model represent?

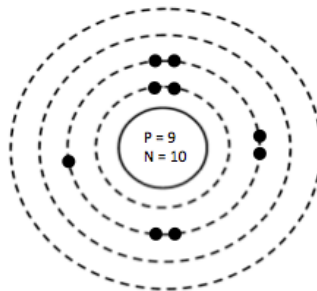
19. In a Bohr Diagram, what is the maximum number of electrons allowed in the:

- a) Innermost (first) shell? _____
- b) Second shell? _____
- c) Third shell? _____

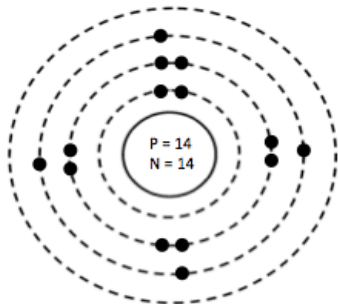
20. Identify the element represented by the following Bohr Diagram:



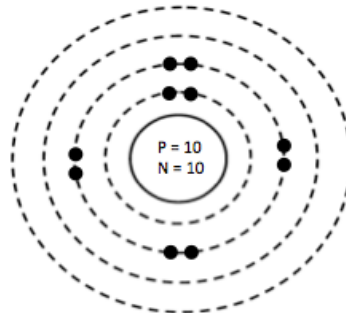
Element:



Element:



Element:



Element:

21. Draw the Bohr diagram for the following elements:

<p>Lithium</p>	<p>Neon</p>	<p>Calcium</p>
<p>Chlorine</p>	<p>Argon</p>	<p>Sulfur</p>