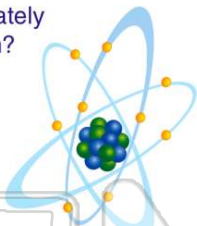




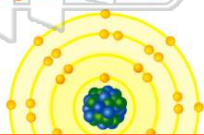
Name _____ Class _____ Date _____

- 1 Which subatomic particles have a mass of approximately **1 atomic mass unit** each?
- A proton and electron
 - B proton and neutron
 - C neutron and positron
 - D electron and positron



- 2 Experiments with **gold foil** indicated that atoms
- A usually have a uniform distribution of positive charges
 - B usually have a uniform distribution of negative charges
 - C contain a positively charged, dense center
 - D contain a negatively charged, dense center

- 3 What is the total number of **completely filled sublevels** found in an atom of krypton in the **ground state**?
- A 10
 - B 2
 - C 8



- 4 Which electron configuration represents an atom in the **excited state**?
- A $1s^2 2s^2 2p^5 3s^1$
 - B $1s^2 2s^2 2p^6 3s^1$
 - C $1s^2 2s^2 2p^6 3s^2$
 - D $1s^2 2s^2 2p^6 3s^2 3p^1$



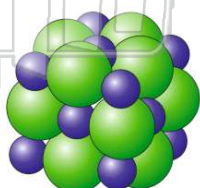
PREVIEW

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- 7 A _____
u
th
n
- A _____
B empty space and has a small, positively charged nucleus
C a large, dense, positively charged nucleus
D a large, dense, negatively charged nucleus

- B 10
C 3
D 4

- 9 Which sample is composed of particles arranged in a **regular geometric pattern**?
- A $\text{Cl}_2(\text{g})$
 - B $\text{CCl}_4(\text{l})$
 - C $\text{LiCl}(\text{s})$
 - D $\text{LiCl}(\text{aq})$



- 10 What is the total number of orbitals in the **d sublevel** of an atom?
- A 1
 - B 7
 - C 3
 - D 5

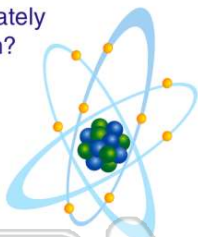




ANSWER KEY

Which subatomic particles have a mass of approximately **1 atomic mass unit** each?

- A proton and electron
- B proton and neutron
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- D electron and positron



(b)

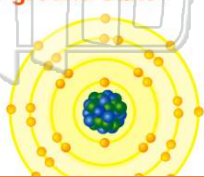
Experiments with **gold foil** indicated that atoms

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(c)

What is the total number of **completely filled sublevels** found in an atom of krypton in the **ground state**?

- A 10
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(c)

Which electron configuration represents an atom in the **excited state**?

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- D $1s^2 2s^2 2p^6 3s^2 3p^1$

(a)



PREVIEW

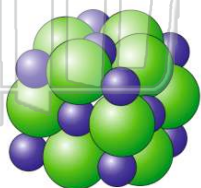
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- B empty space and has a small, positively charged nucleus
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D 4

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(c)

What is the total number of orbitals in the **d sublevel** of an atom?

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(d)