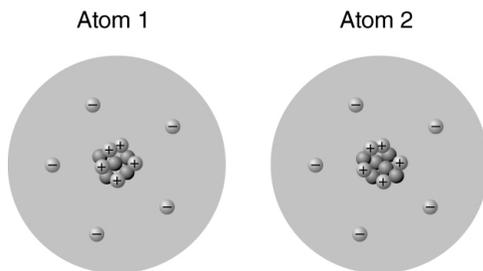


What Is the Atomic Theory?

1 Samir drew two atoms as shown in the following illustration.



Which statement is **true**?

- (A) They are atoms of two different elements.
- (B) They are both atoms of the same element.
- (C) Atom 1 has a positive charge, and atom 2 has a negative charge.
- (D) Atom 2 has a positive charge, and atom 1 has a negative charge.

2 Atoms are made up of smaller particles called subatomic particles. Which is a subatomic particle that has no charge?

- (F) electron (H) nucleus
- (G) neutron (I) proton

3 Every atom has a center called the nucleus. The nucleus has a positive charge. Which particles are found in the nucleus?

- (A) neutrons only
- (B) protons only
- (C) electrons and protons
- (D) neutrons and protons

4 The following table describes four different atoms.

	Number of electrons	Number of neutrons	Number of protons
Atom 1	8	8	8
Atom 2	8	10	8
Atom 3	10	8	7
Atom 4	10	9	8

Which is **true**?

- (F) Each atom is a different element.
- (G) Only atoms 3 and 4 are the same element.
- (H) Atom 3 is a different element from all the others.
- (I) Atom 4 is a different element from all the others.

5 A scientist is examining two atoms. One has a nucleus with five protons and five neutrons surrounded by five electrons. The other has a nucleus with five protons and six neutrons surrounded by five electrons. What can the scientist conclude about these two atoms?

- (A) They have different charges.
- (B) They are the same element.
- (C) They are not made of matter.
- (D) They cannot form compounds.